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THE CINCINNATI

LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

EDITED BY

J. C. CULBERTSON, M.D.

NEW SERIES, VOL. XXIII. WHOLE VOLUME, LXII.

CINCINNATI:
PUBLISHED BY DR. J. C. CULBERTSON, 199 W. 7TH ST.
July–December, 1889.

THE CINCINNATI
LANCET PRESS,
PRINTERS, PUBLISHERS AND BINDERS,
199—203 West Seventh Street,
CINCINNATI.

LIST OF CONTRIBUTORS.

VOLUME XXIII.

- Barnes, A. S., St. Louis, Mo.
  - The Accoucheur and his Forceps, 299.
- Brown, A. M., Cincinnati, O.
  - Laparotomy for Obstruction of the Bowels, 472.
- Brown, H. M., Hillsboro, O.
  - Points in the Right Direction, 432.
- Boylan, J. E., Cincinnati, O.
  - The Relation of Catarrhal Affections of the Upper Air Passages to Ear Disease, 89.
  - A Case of Intubation in Pseudo-Membraneous Croup, 718.
- Buxbaum, A. I. F., Cincinnati, O.
  - On the Treatment of Devitalized Teeth, 517.
- Cameron, Otis L., Cincinnati, O.
  - Epithelioma with Trichinæ, 123.
- Carson, Wm., Cincinnati, O.
  - Pancreatic Cyst, 724.
- Chapman, W. C., Toledo, O.
  - Prognosis in Pulmonary Tuberculosis, 359.
- Christopher, W. S., Cincinnati, O.
  - A Case of Puerperal Fever, 1.
  - Chemistry of Hypnotics and Anæsthetics, 368.
- Cleveland, J. L., Cincinnati, O.
  - Pilocarpine in Bright's Disease, 572.
- Collins, S. H., Lawrenceburgh, Ind.
  - The Elixir of Life, 203.
- Conner, P. S., Cincinnati, O.
  - Address on Surgery, 29.
  - A Correction, 469.
- Crossland, J. D., Zanesville, O.
  - Poisoning by Illuminating Gas, 622.
- Culbertson, H., Zanesville, O.
  - The Life and Character of C. C. Hildreth, M.D., 314.
- DeWitt, W. H., Cincinnati, O.
  - Sub-Normal Temperature during Second Week of Typhoid Fever, 415.
- Dowling, Francis, Cincinnati, O.
  - Sympathetic Affections of the Eyes resulting from Disease of the Nasal Passages, 464.
- Eichberg, J., Cincinnati, O.
  - Volvulus, 691.
- Ellis, A. N., Cincinnati, O.
  - The Influence of the Trade Winds on the Health of the World, 195.
- Fravel, Ed. H., Poca, W. Va.
  - A Report of One Hundred Cases of Ulceration of the Cornea, 200.
- Freeman, Leonard, Cincinnati, O.
  - The Pasteur Filter, 122.
  - Tuberculosis of Joints, 604.
- Goode, Geo. H., Cincinnati, O.
  - Headache Due to Disorders of Vision, 253.
- Gores, F. C., Cincinnati, O.
  - Irritation of the Brain, 679.
- Hall, Rufus B., Cincinnati, O.
  - Pyosalpinx, 93.
  - Some Points in the Diagnosis of Pyosalpinx, 403.
  - Abdominal Section, 439.
- Herrick, C. L., Cincinnati, O.
  - A Contribution to the Histology of the Cerebrum, 325.
- H——, J. S.
  - The Lament of the Cultured Gonococcus, 78.
- Jenkins, J. O., Newport, Ky.
  - Diphtheria, 498.
- Johnston, J. Ambrose, Cincinnati, O.
  - Intubation for Diphtheritic Laryngitis, 435.
- Judkins, Wm., Cincinnati, O.
  - Deleterious Effects of Cocaine, 38.
  - Legal Matters of Interest to the Physician, 503.
- Juettner, Otto, Cincinnati, O.
  - Report of a Case Illustrating Malarial Neurosis, 659.
- Juler, H. C., Cincinnati, O.
  - Chit-Chat from London, 171, 221, 417, 500, 569.
- Kebler, F., Cincinnati, O.
  - Post-Typhoid Paralyses, 35.
- Kiely, W. E., Cincinnati, O.
  - On Pleuritic Effusion, 595.
- Langdon, F. W., Cincinnati, O.
  - Antiseptic Solutions, 410.
- Longfellow, R. C., Cincinnati, O.
  - Gastric Ulcer, 115.
- Love, I. N., St. Louis, Mo.
  - Antiseptics, Analgesics, and Hypnotics, 308.
- Lydston, G. Frank, Chicago, Ill.
  - The Local Treatment of Syphilitic Phenomena, 467.
- McKee, E. S., Cincinnati, O,
  - Emphysema, 169.
  - Obstetrics and Gynecology, 688.
- Millikin, Dan, Hamilton, O.
  - On Fever, 427.
- Minor, T. C., Cincinnati, O.
  - The Evil that has been Said of Doctors, 24–57.
  - Brown-Séquard's Testicular Fountain of Youth, 79.
  - Parisian Medical Chit-Chat, 559, 643.
  - Epidemic Catarrh, 656.

222398

Mills, O. S., Cincinnati, O.
  A Case of Acute Bright's Disease Combined with Purpura Hemorrhagica in a Boy Ten Years of Age, 603.
Mitchell, E. W., Cincinnati, O.
  Empyema, 605.
Mussey, Wm. L., Cincinnati, O.
  Death during Anæsthesia with Chloroform, 416.
  Report of a Case of Popliteal Aneurism, 717.
Myers, Wm. H., Ft. Wayne, Ind.
  A few Considerations on Peritoneal Effusions after Intra-Peritoneal Operations, 362.
Porter, William, St. Louis, Mo.
  Contagiousness of Tuberculosis, 405.
Ransohoff, Joseph, Cincinnati, O.
  Old Bilateral Dislocations of the Elbow, 143.
Reed, Chas. A. L., Cincinnati, O.
  Sarcoma of the Ovary, with Report of Two Cases Successfully Treated by Laparotomy, 492.
  Vaginal Hysterectomy for Cancer, 621.
Reynolds, Dudley S., Louisville, Ky.
  The Myopic Eye, 496.
Ricketts, Edwin, Cincinnati, O.
  Cholecystotomy, 685.
Ricketts, B. Merrill, Cincinnati, O,
  Plasto-Cosmetics in Surgery of the Face, 303.
  Pemphigus Vulgaris, 470.
Ryan, G. W., Cincinnati, O.
  Spina Bifida, 572.
Sander, Enno, St. Louis, Mo.
  On Bitter Waters, 119.
Sattler, Eric E., Cincinnati, O.
  A Case of Almost Complete Nasal Stenosis Produced by the Use of the Galvano-Cautery, 494.
Schoolfield, C. B., Dayton, Ky.
  A Case of Suppurative Hepatitis, 715.
Scott, Wm., Loveland, O.
  Cystic Tumors, 75.
Sexton, J. C., Rushville, Ind.
  Errors of Physician and Patient in a Case of Vesical Calculus, 275.
Stapleford, A. D., Cincinnati, O.
  Report of a Case of Metrorrhagia, 146.
Sullivan, W. H., Rising Sun, Ind.
  Nitrous Ether for the Cure of Eczema Impetiginodes, 624.
Taylor, Wm. H., Cincinnati, O.
  President's Address to the American Association of Obstetricians and Gynecologists, 328.
Thrasher, A. B., Cincinnati, O.
  Morbid Perforations of the Nasal Septum, 461.
Treon, Fred, Crow Creek Agency, Dak.
  Consumption among the Sioux Indians, 148.
Warren, Chas. Everett, Boston, Mass.
  Passion.—The Modern Critic, 711.
Welch, William H., Baltimore. Md.
  Considerations Concerning some External Sources of Infection in their Bearing on Preventive Medicine, 61.
Wells, Edward F., Chicago, Ill.
  Alarming Cardiac Symptoms Following Typhoid Fever, 518.
Wenning, W. H., Cincinnati, O.
  The Genu - Pectoral or Knee - Elbow Position in Obstetrics, 393.
Whittaker, J. T., Cincinnati, O.
  Tuberculosis in Sleeping-Cars, 167.
  Modern Hypnotics, 372.
Wright, J. A., Toledo, O.
  Puerperal Insanity, 647.
Zenner, Philip, Cincinnati, O.
  Silver Gilders' Cramp, 39.
  Treatment of "Nervousness," 489.
  Clinical Significance of the Tendon Reflexes, 543.
  The Examination of a Case of Insanity, 599.
Zinke, E. Gustav, Cincinnati, O.
  Rupture of the Liver, 471.

INDEX TO VOLUME XXIII.

A SENSIBLE measure, 404.
A visit to Apostoli, 215.
An extraordinary experiment and its results, 81.
An international courtesy, 101.
Abdomen, suture and ligature within, 98, 226.
  wounds of the, 225.
Abdominal gestation, 464.
  operations, accidents of and complications incident to, 341.
  surgery, the refinement of, 340.
  section, sutures and ligatures in, 98.
  and Cæsarean section, sutures in, 184.
  tumors and pregnancy, 185.
Abortion, 384.
Abscess of the liver, treatment of, 270, 652, 695.
Acetic acid in diphtheria, 217.
Acne, etiology and treatment of, 522.
Actinomycosis in the human being, 154, 537.
  and tuberculosis, 136.
Albumin in diet, the amount of, 106.
  in the urine, a new test for, 611.
Albuminuria, the etiology of, 51.
  the prognosis of, 526.
Alcohol, effects of in moderate quantity, 441.
  in fevers, 253.
  in puerperal fever, 298.
Alcoholism, strychnine in, 327.
Alimentary canal and liver, uses of sulphur in disorders of, 54.
Alkaloids and plants, 18.
Alopecia præmatura, treatment of, 193.
Ammonia in the bath, 619.
Amputation, a case of triple primary, 55.
Amyloid degeneration of the pancreas, 192.

Anæmia, bichloride of mercury for, 18.
  the value of subcutaneous saline injections in, 535.
Analgesics in the relief of pain of purely nervous origin, 632.
Anatomy of the prostate, 160.
Anæsthesia, death during, with chloroform, 416.
Anæsthetic, creolin as an, 405.
Anæsthetics, administration of, 281.
Aneurism, popliteal, report of a case, 717.
Angle of the neck with the shaft of the femur, 273.
Antacids in dyspepsia and gravel, 319.
Antigalactic, antipyrin as an, 392.
Anthelmintic, a new, 239.
Antifebrin in epilepsy, 729.
  in quinsy, 604.
  new therapeutic properties of, 247.
Anti-fermentative treatment of infantile diarrhœa, 629.
Antipyretic, hydracetin, the new, 214.
Antipyretics, analgesics, and hypnotics, 308.
Antipyrine as an antigalactic, 392.
  hæmostatic effect of, 319.
  in chronic nervous urticaria, 273.
  in enuresis, 238.
  in incontinence of urine, 392.
  the incompatibles of, 634.
  the monopoly of, 85.
Antisepsis in typhoid fever, 563, 730.
Antiseptic, a new, 668.
  action of ammonia, 111, 264.
  camphoric acid as an, 239.
  function of gastric juice, 551.
  irrigation for chronic synovitis, 87, 226.
  mercuric chloride as an, 703.
  properties of essences, 155.
  solutions, 410.
Antiseptics in dentistry, 586.
Antrum, new diagnostic sign of abscess of, 536.
Aphthous stomatitis, formula for, 122.
Aprosexia, 508.
Army Medical Board examination, 261.
Arsenic, detection of in the bones, 577.
"As we mused the fire burned," 725.
Asepsis for midwives, 576.
Asthma and the uterine system, 281, 636.
  menthol in, 217.
  treatment of, 526.
  treatment of by lobeline, 581.
Asserted cure of neuralgia by rotatory mirrors, 137.

BACILLI on a bald head, 438.
Bacillus of tetanus, 684.
Bacteria and disease poisons, 617.
  does salting meat destroy? 530.
  flagella of, 599.
  hypothetical treatment of, 582.
Balsam of Peru in leukoplakia of the tongue, 78.
  in phthisis, 123.
  in the treatment of ozæna, 521.
Bath, ammonia in the, 619.
Beef-tea as a nutrient, 531.
Behavior of the germs of cholera, typhoid, and tuberculosis in milk, whey, and cheese, 367.
Benzol, another use for, 438.

BIBLIOGRAPHY:
  Abdominal Surgery, Smith, 660.
  Atlas of Venereal and Skin Diseases, Morrow, 140.
  Atlas of Venereal and Skin Diseases, Taylor, 247, 530.
  American Resorts, James, 459.
  Chemistry: General, Medical, and Pharmaceutical, Attfield, 515.
  Cyclopedia of the Diseases of Children, Medical and Surgical, Keating, 217, 513.
  Diabetes, Schnee, 619.
  Diphtheria, Billington, 459.
  Diseases of the Eye, Berry, 515.
  Diseases of Women, Davenport, 458.
  Essentials of Pathology and Morbid Anatomy, Semple, 619.
  Harvey on the Circulation of the Blood, Willis, 567.
  Hypnotism, Bjornstrom, 516.
  Immunity through Leucomaines, Bacigalupi, 141.
  Introduction to the Treatment of Disease, Keith, 661.
  Intubation of the Larynx, O'Dwyer, 459.
  Laboratory Guide in Urinalysis and Toxicology, Witthaus, 324, 515.
  Lectures on Obstetric Nursing, Parvin, 456.
  Manual of Dietetics for Physicians, Mothers, and Nurses, Pritchard, 516.
  Manual of Diseases of the Ear, Buck, 514.
  Manual of Minor Surgery and Bandaging, Heath, 514.
  Ninth Annual Report of the State Board of Health of Illinois, 458.
  On the Treatment of the Morphine Habit, Erlenmeyer, 273.
  Ophthalmology and Ophthalmoscopy, Schmidt-Rimpler, 458.
  Pathology and Morbid Anatomy, Green, 458.
  Physiological Notes on Primary Education and the Study of Language, Jacobi, 219.
  Practical Lessons in Nursing, Burnett, 87.
  Practice of Pharmacy, Remington, 530.
  Pulmonary Tuberculosis, von Ziemssen, 141.
  Report of the Health Department of the City of Cincinnati, 321.
  Second Biennial Report of the North Carolina Board of Health, 140.
  Sixteenth Annual Report of the Secretary of the State Board of Health of the State of Michigan, 87.
  Strathpeffer Spa, Fox, 142.
  System of Obstetrics, Hirst, 565.
  System of Gynecology, Mann, 218, 247.
  The Annual of the Universal Medical Sciences, Sajous, 324.
  The Annual Report of the Surgeon-Genera of the U. S. Army, 323.
  The Insane in Foreign Countries, Letchworth, 667.
  The Principles and Practice of Surgery, Ashurst, 661.
  The Urine, the Common Poisons, and the Milk, Holland, 273.
  Therapeutische Notizen der Deutschen medizinal Zeitung, Grosser, 530.
  Third Annual Report of the State Board of Health of the State of Ohio, 274.

BIBLIOGRAPHY:
  The Story of the Bacteria and Their Relations to Health and Disease, Prudden, 567.
  Through the Ivory Gate, Ireland, 660.
  Transactions of the American Association of Obstetricians and Gynecologists, Vol. I, 1888, 113.
  Transactions of the American Orthopedic Association, 514.
  Transactions of the Louisiana State Medical Society, 567.
  Transactions of the Washington Obstetrical and Gynecological Society, 568.
  Treatise on the Science and Practice of Midwifery, Playfair, 516.
  Treatise on Surgery, Holmes, 219.
  Text-Book of Animal Physiology, Mills, 566.
  Text-Book on Human Physiology, Landois, 515.
Bichloride of mercury for anæmia, 18.
Biniodide of mercury in hay fever, 159.
Bitter waters, 119.
Black eye, 238.
Bladder, restoration of after excision, 165.
Blood, test for, 414.
Boiling of drinking-water and milk, 654.
Bone, acute infectious processes in, 290.
Bones, detection of arsenic in the, 577.
Bony growth, artificial increase of in man, 699.
Booming our societies, 456.
Boston conference on physical culture, 708.
Botanical gardens, 142.
Botany, practical, 135.
Brain, accumulations of potassium bromide in the, 48.
  and moral culture, 14.
  irritation of the, 679.
  pathological anatomy of, 479.
  surgery in France, 532.
Bright's disease, acute, combined with purpura hemorrhagica, in a boy ten years of age, 603.
  pilocarpine in, 572.
Bromoform in whooping-cough, 564.
Brown-Séquard's testicular injections, 79, 178.

CAFFEINE and its therapeutic uses, 587.
Calcium chloride in glandular affections of the neck, 164.
Calomel in the treatment of croupous pneumonia, 620.
Camphor fumes for acute coryza, 497.
Camphorated naphthol in tuberculous ulcerations, 297.
Camphoric acid as an antiseptic, 239.
Cancer and age in animals, 182.
  constitutional nature of, 354.
  laryngectomy for, 704.
  odor of, 263.
  vaginal hysterectomy for, 621.
  of the breast treated by inoculation with erysipelas, 135.
  recurrence of after amputation, 291, 309, 672, 174.
  of the rectum, 614.
  primary, of the gall-bladder and its relation to gall-stones, 46.
Castration of criminals, 146.
Carcinoma, removal of the uterus for, 624.
  successful experimental transmission of, 276.
Catarrh, epidemic, 656.
Catarrhal affections of the upper air-passages, relation of to ear diseases, 89.
Catheterism of the ureters by means of the cystoscope, 110, 578.
Cerebral abscesses and thrombosis, 483.
  lesions, differences in temperature of the two sides of the body a symptom of, 134.
  tumors successfully removed by trephining, 702.
Cerebrum, contribution to the histology of the, 325.
Chapped hands, 667.
  nipples, hydrate of chloral in, 243.
Chemistry of gastric digestion, 547.
  of hypnotics and anæsthetics, 368, 374.
Chest, conformation of and tendency to consumption, 662.
  percussion "don'ts," 85.
Chilblains, 18.
Childbed, ergot in, 303.
Chit-chat from London, 171, 221, 417, 500.
Chlorate of potassium in ozæna, 161, 555.
Chloroform, administration of by gas light, 241.
Cholecystotomy, 685, 552.
Chorea, cerebral alterations found in two cases of, 95.
  treatment of by prolonged sleep, 255.
Christ's Hospital, 583.
Chronic rhinitis, 320.
  tubercular endometritis, 635.
Chrysarobine in hemorrhoids, 664.
Cincinnati Hospital examinations, 349.
Circumscribed œdema and paroxysmal hæmoglobinuria, 191.
Cirrhosis of the liver, curability of, 615.
  prognosis of, 173.
Cleaning a fountain pen, 588.
Clinical significance of the tendon reflexes, 543.
Closure of defects in the skull, 445.
Cocaine and borax, incompatibility of, 438.
  deleterious effects of, 38.
  in the treatment of the urinary organs, 239.
  injection in spastic contraction of the joints, 264.
  tablets, 330.
Congenital polypus of the larynx, 562.
  sinus of the urachus, 331.
Colon-flushing in typhoid fever, 533.
Compression in cases of catarrh and dilatation of the stomach and bowel, 48.
Conception, most probable period of, 534.
Concussion of the spine, medico-legal aspects of, 192.
Constipation, treatment of, 303.
  vertigo from, 133.
Consumption among the Sioux Indians, 148.
  the prevention of the spread of, 109.
Contagion, study of, 269.
Contagious diseases, personal disinfection in, 107.
Continence, effects of on adults, 191.
Contraction of pigment corpuscles, 238.
Cooling the body by spray, 716.
Co-operative charities, et al, 630.
Copaiba in surgery, 227.

Cornea, ulceration of, with report of 100 cases, 200.
Corrosive mercury and turpentine in diphtheria, 638.
Coryza, 274.
  camphor fumes for acute, 497.
  snuff for acute, 591.
Cough, nervous, 297.
Cramp, silver gilders', 39.
Cranial nerves, 272.
Craniotomy on living children, the justifiability of, 383.
Creolin as an anæsthetic, 405.
Creosote in diabetes, 499.
  in phthisis and pulmonary tuberculosis, 263.
Crepitant rale, significance of the, 184.
Croup, oil terebinth in, 505.
Croupous pneumonia, treatment of with calomel, 620.
Culture media, preparation from milk, 538.
Cystic tumors, 75.
Cystitis in women, 186.
Cystoscopy in general and tumors of the bladder in particular, 110, 578.

DAIRY inspection, 425.
Dandruff, cure for, 624.
Danger in wooden tooth-picks, 591.
Deafness, pilocarpine in, 357.
Death during anæsthesia with chloroform, 416.
Decomposition of iodoform solutions, 591.
Delirium, psycho-motor origin of, 479.
Dentirtry, antisepsis in, 586.
Diabetes, creosote in, 499.
Diarrhœa in phthisis, treatment of, 28, 139.
Dietetic management of keratitis, 244.
Digestibility of boiled milk, 666.
Diphtheria, 498, 226.
  acetic acid in, 217.
  and follicular tonsillitis, 694.
  corrosive mercury and turpentine in, 638.
  internal use of turpentine in, 719.
  prophylaxis of, 23.
Diphtheritic membrane, a solvent for, 482.
Diseases of the glandular structures of the pharynx and naso-pharynx, 95.
Diseased meat and infectious diseases, 56.
Diseased tonsils, treatment of when unattended with hypertrophy, 229.
Disinfectant action of steam, 99.
  lime as a, 231.
Diuretic action of milk sugar, 246, 617.
  lactose as a, 358.
  power of caffeine when associated with paraldehyde, 613.
Drainage of operation wounds, 704.
Drainage-tube passed through the rectum, 137.
Drunkard, responsibility of the, 479.
  trusteeing, 169.
Dry operations, 606.
Dysmenorrhœa and ovaralgia, pulsatilla in, 688.
Dyspepsia and gravel, antacids in, 319.
  flatulent, 243, 499.
Dyspnœa, strophanthus for, 2.

EARS, importance of examining in troublesome cough, 670.
Eden Park reservoir, 100.
Eczema impetiginodes, nitrous ether for, 624.
  the treatment of the acute stage of, 162.
  Œdema, neuropathic origin of, 638.
Elbow, old bilateral dislocations of, 143.
Electric light and power wires, 455, 509, 609.
Electrical cataphoresis, 654.
  sunstroke, remedy against, 662.
Electricity in detection of heart-beats, 677.
  in the administration of drugs, 628.
  in the removal of moles, 271.
  value of in gynecology, 664.
Elixir of life, 176, 203.
Embolism, fatty, 183.
Empyema, 605, 169.
  surgical treatment of, 270.
Endo-auscultation, 133.
Enlargement of the stomach, 183.
Enuresis, antipyrin in, 238.
Expectorant potion, 236.
Epilepsy, gastric, 705.
  method in the treatment of, 111.
  report of a case treated with antifebrin, 729.
  the frequency of certain premonitory and after-symptoms in, 290.
Epistaxis, injections of lemon-juice in severe, 157, 617.
Epithelioma of the larynx in a girl, 95.
  with trichinæ, 123.
Ergot in childbed, 303.
Erosions of the os uteri and their treatment, 242.
Errors of physician and patient in a case of vesical calculus, 275.
Erysipelas, inoculation of in cancer of the breast, 135.
  treatment of with white lead, 667.
Erythroxylon coca: its value as a medicament, 664.
Essences, antiseptic properties of, 155.
Examination of the gastric secretion, 191.
Excising the wrist, a new method of, 292.
Excision of the clitoris in a child for nymphomania, 294.
  of the hip-joint, 695.
  of thyroid in goitre, 268.
Exophthalmic goitre, 135.
Experimental contributions to the question of the infectiousness of the milk of tuberculous cows, 578.
Extirpation of the rectum after Kraske's method, 642.
Extra-uterine pregnancy, a case of, 331.
Eye, the myopic, 496.
Eyes, wearing out of the, 288.

FAITHFUL services recognized, 128.
Fatal result of suspension for ataxy, 705.
Fatty embolism, 183.
Fecundation, psychology of, 297.
Felon, to abort a, 211.
Fever, 427.
  periodic, 49.
  puerperal, 1.
  simplified method of cold-water treatment of, 309.
Fevers, alcohol in, 253.
Fibrous tumor of the right ovary during pregnancy, successful removal of a, 376.
Flagella of bacteria, 599.

Flap-splitting in perineorrhaphy, with special reference to Tait's operation, 338.
Flatulent dyspepsia, 243, 499.
Forceps and version, 385.
  the accoucheur and his, 299.
Fracture, a new advance in the treatment of ununited, 641.
France, brain-surgery in, 532.
  operating tables in, 716.
  precedence of medical claims in, 414.
Freckles, removal of, 146.
Frequency of certain premonitory and after-symptoms in epilepsy, 290.
Function of renal glomeruli, 129.
Furuncles, treatment of, 709.

GALL-STONES and its relation to primary cancer, 46.
Gaseous cysts of the neck, 614.
Gastric cancer and ulcer of the stomach: a new method for the differential diagnosis of, 112.
  digestion, chemistry of, 547.
  epilepsy, 705.
  juice, antiseptic function of, 551.
  secretion, examination of the, 191.
  ulcer, 115.
Gastro-enterostomy, 183.
Genu-pectoral or knee-elbow position in obstetrics, 393.
German physicians adopt a code of ethics, 178.
Germicide, Peru balsam as a, 239.
Gestation, abdominal, 464.
Glaucoma, the treatment of, 706.
Glandular affections of the neck, calcium chloride in, 164.
Graves' disease and insanity, 564.
Grafting of a chicken cornea, 525.
Goitre, excision of the thyroid in, 268.
  exophthalmic goitre, 135.
  injections of tincture of iodine in the treatment of, 34.
  operations for, 536.
Gonococci, 181.
Gonococcus, the lament of the cultured, 78.
Gonorrhœa as an indictable offense, the transmission of, 351.
  in the male, 265, 267.
  treatment of certain acute complications of, 616.
  salicylate in, 718.
"Gouty sore throat," 97.

HÆMATEMESIS, 245.
  hot water for, 538.
Hæmatometra, 446.
Hæmoptysis, non-tubercular, 635.
Hæmostatic effect of antipyrine, 319.
  opium as a, 60.
Hair-wash, 298.
Hay-fever, biniodide of mercury in, 159.
Headache due to disorders of vision, 253.
  treatment of sick, 357.
Heart, valvular diseases of the, 291.
Heart-beats can be detected by electricity, 677.
Hemorrhage of the larynx, 481.
  temperature in post-partum, 133.
  torsion of arteries for, 573.
Hemorrhoids, chrysarobine in, 664.
Hepatic cirrhosis, curability of, 182.
Hepatitis, suppurative, 715.
Hereditary syphilis, 672.
Heredity of tuberculosis, 318.
  of bone tuberculosis, 642.
Hernia, inguino-scrotal, of large proportions, 3.
  radical cure of, 480.
  reduction of during coughing, 481.
History of medicine, 425.
  influence of insanity on, 663.
Hospitals, Sir Andrew Clark on, 130.
How much should a city pay its health-officers? 391.
How President Dwight paid his debts, 390.
How to clean hypodermic syringes, 179.
Hydracetin, the new antipyretic, 214.
Hydrarthrosis of the knee, treatment of, 635.
Hydrastis canadensis, local applications of, 34.
Hydrate of chloral in chapped nipple, 243.
Hypertrichosis, the treatment of, 138.
Hypnotics, modern, 372.
Hypnotic, paraldehyde as a, 482.
  suggestion in labor, 587.
  and its technique, 484.
Hypnotism and suggestion in the treatment of mental diseases, 282.
Hypochondria and hysteria in men and women, 580.
Hypothetical treatment of bacteria, 582.
Hysterectomy for fibroids in Vienna, 293.
  vaginal, 375.
Hysteria, infantile, 523.

ICE in treatment of lupus, 669.
  of pneumonia, 278.
Illegitimate births in Europe, 432.
Illinois State Board of Health, new official register of, 390.
Immediate operative procedure in penetrating wounds of the abdomen, 225.
Importance of examining the ears in troublesome cough, 670.
Incompatibility of cocaine and borax, 438.
Index catalogue, 252.
Inebriety, medico-legal problems of, 697.
Infantile diarrhœa, anti-fermentative treatment of, 629.
  hysteria, 523.
Infants, nutrition of, 212.
Infection, sources of in their bearing on preventive medicine, 61.
Infectious diseases, disposal of the sputa in, 234.
Infective period in contagious diseases, 434, 582.
Influence of the trade winds on the health of the world, 195.
Ingenuity, misapplied, 263.
Ingrowing toe-nail, 507, 540.
Injection to destroy oxyuris vermicularis, 161.
  of lemon-juice in severe epistaxis, 157, 617.
  of tincture of iodine in the treatment of goitre, 34.
Insanity, influence of on history, 663.
  and Graves' disease, 564.
  the examination of a case of, 599.
  puerperal, 647.
Insomnia, the treatment of, 186.
Instruction for women, 568.
Intestines, action of mercury on the, 109.
  medical treatment of in obstruction, 224.

Intra-uterine cord amputations of the fetal extremities, 337.
Intubation for diphtheritic laryngitis, 435.
  in pseudo-membraneous croup, 718, 721.
Intussusception, an unusual case of, 223.
Iodide of potassium, a vehicle for, 157.
Irrigation of the peritoneal cavity, 107.
Irritation of the brain, 679.
Is the Indian a descendent of the Jew? 510.
Is there a uterine nerve centre? 294.

JEQUIRITY, active principles of, 581.
Jews, is the Indian a descendent of the? 510.
Joy among the convicts, 231.
Jugulating pneumonia, 507.

KERATITIS, dietetic management of, 244.
Kidney, nephrectomy of a horse-shoe, 131.
  surgery of the, 47.
Knife from the bladder, successful removal of, 703.

LABOR, hypnotic suggestion in, 587.
  premature, 384.
Lactose as a diuretic, 358.
Laparo-elytrotomy, 386.
Laparotomy for obstruction of the bowels, 472.
  in visceral wounds, 19.
Laryngeal phthisis, curability of, 185.
  tuberculosis, the result of recent methods of treatment of, 375.
  tuberculosis, menthol in, 50.
  ulcers, the diagnosis of, 532.
Laryngectomy for cancer, 704.
Laryngitis, nitrate of silver in, 230.
Legal matters of interest to the physician, 503.
Lemon-juice for bleeding of the nose, 157, 617.
Leprosy, statistics of in the United States, 701.
  the spread of, 86.
Leukoplakia of the tongue, balsam of Peru in, 78.
Lime as a disinfectant, 231.
Lithium in mineral waters, 103.
Liver, abscess of, 270.
  curability of cirrhosis of, 615.
  prognosis of cirrhosis of, 173.
  rupture of the, 471.
  tolerance of operations on the, 534.
Lobeline in the treatment of asthma, 581.
Local medical organizations, 661.
Localization of intracranial lesions, 673.
Locomotor ataxy, fatal result of suspension in, 705.
  forcible flexion of the body in, 676.
  mechanical treatment of, 676.
  optic atrophy in, 564.
Lupus of the throat and nose, 98.
  treated by ice, 669.

MALARIA, pereirine as an adjuvant to quinine in, 666.
Malarial neuroses, report of a case, 652.
Markley village, 234.
Mastoid process, on diseases of the, 187.
Matches, the first, 119.
Measles, necrosis of the alveolar processes following, 537.
Meat poison, 108.
Medical education, 555.
Medical profession and the opticians, 562.
Medico-legal aspects of concussion of the spine, 192.
  problems of inebriety, 697.
Membraneous croup, 245.
Menthol and saffrol in neuralgias, 88.
  in asthma, 217.
  in laryngeal tuberculosis, 50.
  in neuralgia, 518.
  in vomiting of pregnancy, 688.
Mercurial injections for syphilis, 539.
Mercuric iodide as an antiseptic, 703.
Mercury, action of on the intestines, 109.
Methylic chloroform and the so-called methylene bichloride, 240.
Metrorrhagia, report of a case of, 146.
Microbes in the mouth of a healthy person, 480.
Micro-organsms of malignant tumors, 660.
Migraine, the treatment of, 321.
Misapplied ingenuity, 263.
Mixed infection in gonorrhœa, 265, 267.
Modern hypnotics, 372.
Modifications of egg-albumen, 230.
Moles, removal of by electricity, 271.
Morbid perforations of the nasal septum, 461.
Morphine injections, 483.
Mortality among nursing orders, 589.
Most probable period of conception, 534.
Mouth wash, 147, 689.
Mt. Auburn Incline accident, 456.
Myopic eye, the, 496.

NÆVUS and the best methods of curing it, 20.
Naphtha habit, 214.
Nasal catarrh, radical cure of, 637.
  respiration, 189.
  stenosis produced by the use of the galvano-cautery, a case of almost complete, 494.
Necrosis of the alveolar processes following measles, 537.
Need of uniformity in pharmacopœial preparations, 210.
Nephrectomy of a horse-shoe kidney, 131.
Nephritis and albuminuria in the typhoid fever in children, 414.
Nervous cough, 297.
  symptoms produced by phimosis, 695.
Nervousness, treatment of, 489.
Neuralgia, asserted cure of by rotatory mirrors, 137.
  menthol in, 518.
  phenacetin in the treatment of, 147.
  saffrol in, 88.
Neuropathic origin of œdema, 638.
Neurosis, traumatic, 241.
New skin remedies, 114.
New source of supply of podophyllum, 604.
Nipples, sore, 243, 641.
Nitroglycerine, 161.
Nitrous ether for the cure of eczema impetignodes, 624.
Normal diet, 594.
Nutrition of infants, 212.
  and peptones, 158.
Nux vomica in cardiac failure, 543, 319, 53.
Nymphomania, excision of the clitoris in a child for, 294.

OBESITY, treatment of, 639.
OBITUARY:
  Thomas B. Harvey, M.D., 659.
  J. M. Lane, M.D., 559.
  A. E. Jones, M.D., 126.
  C. C. Hildreth, M.D., 179, 314.
Obstetric practice, relation of pelvic measurements to, 256.
Obstetrics and gynecology, 688.
Obstruction of the bowels, laparotomy for, 472.
Ocular defects and the neuroses, 637.
Odor of cancer, 263.
Ohio State Sanitary Association, 510.
Oil terebinth in croup, 505.
Ointments in collapsible tubes, 619.
Old bilateral dislocation of the elbow, 143.
Operation for torticollis, 255.
Ophthalmia photo-electrica, 637.
Ophthalmoscopic examinations, a new method of making, 55.
Opium as a hæmostatic, 60.
  habit, 8.
  in the intestinal hemorrhage of typhoid fever, 43.
Optic atrophy in locomotor ataxy, 564.
Orthopedics of infantile paralysis, 505.
Otitis, diagnosis of perforative, 552.
Otorrhœa, perforative, method of local medication in, 706.
Ovaries and uterus, physical and mental changes after removal of, 160.
Ovariotomy, reasons for drainage in, 381.
Oxyuris vermicularis, injection to destroy, 161.
Ozæna, balsam of Peru in the treatment of, 521.
  chlorate of potash in, 161.
  treatment of with glycerine, 203.

PANCREAS, amyloid degeneration of, 192.
Pancreatic cyst, 724.
Paraldehyde as a hypnotic, 482.
Paralyses, post-typhoid, 35.
Paralysis, orthopedics of infantile, 505.
Parasiticide, quassia as a, 424.
Parisian medical notes, 559, 611, 643.
Passion and the modern critic, 711.
Pasteur filter, 122.
Pathological anatomy of the brain, 479.
Pathology of relapses, 190.
Pemphigus vulgaris, 470.
Peptones and nutrition, 158.
Pereirine as an adjuvant to quinine in malaria, 666.
Pericarditis, diagnosis of, 499.
Periodic fever, 49.
Peritoneal effusions after intra-peritoneal operations, a few considerations on, 362.
Periuterine inflammation: its pathology and treatment, 345.
Personal disinfection in contagious diseases, 107.
Peru balsam as a germicide, 239.
Phenacetin, 524.
  in the treatment of neuralgia, 147.
Phimosis, nervous symptoms produced by, 695.
Phlegmasia dolens, the treatment of, 673.
Phthisis, balsam of Peru in, 123.
  creosote in, 263.
  prophylaxis of, 616.
Phthisis, tonsils in, 229.
  the influence of microbicide medicines in the treatment of, 228.
  treated by intra-pulmonary injections, 185, 278.
  the treatment of diarrhœa in, 28, 139.
Physical education in children, 547.
  signs of pulmonary cavities, 675.
Physicians as financiers, 511.
Pilocarpine in Bright's disease, 572.
  in deafness, 357.
Placental development, 296.
Plants and their alkaloids, 18.
Plasto-cosmetics in surgery of the face, 303.
Pleuritic effusion, 595.
Pneumonia, jugulating, 507.
  treatment of by application of ice, 278.
Podophyllum, new source of supply of, 604.
Post-typhoid paralyses, 35.
Points in the right direction, 432.
Poisons, elimination of, 139.
Poisoning by illuminating gas, 622.
Poisonous effects of water gas, 588.
Porro operation, 386.
Pregnancy and abdominal abdominal tumors, 185.
  vomiting in, 179, 623.
Premature labor, 384.
Preparation of solid culture media from milk, 538.
Preservation of flowers and delicate parts of plants, 620.
Preserve your instruments, 512.
Prevention of mammary abscess, 295.
  spread of consumption, 109.
Preventive medicine, considerations concerning some external sources of infection in their bearing on, 61.
Professional work, 345.
  salaries in Dublin University, 286.
Progress in education in the Cincinnati High schools: is it forwards or backwards, 250.
Progressive neurotic muscular atrophy, 269.
Prophylactic hair-wash, 298.
Prophylaxis, antisepsis, and sanitation, 527.
  of diphtheria, 23.
  of phthisis, 616.
  of scarlet fever, 525.
  of tubercle, 186, 316.
Prostate, anatomy of the, 160.
Pruritus and irritable skin, a method of treating, 255.
Psycho-motor origin of delirium, 479.
Psychology of fecundation, 297.
Ptomaines, 540.
Puerperal fever, 1.
  alcohol in, 298.
  insanity, 647.
  wound infection, the aim of researches in, 533.
Pulmonary consumption, rest in treatment of, 318.
  inflammations, quinine in, 50.
  tuberculosis, prognosis in, 359.
  treatment of by camphorated naphthol, 154.
Puncture of the intestine in obstruction, 174.
Pulsatilla in dysmenorrhœa and ovaralgia, 688.
Pyosalpinx, 93.
  some points in the diagnosis of, 403.

QUACK advertisements in religious newspapers, 348.
Quassia as a parasiticide, 424.
Question of excision, 696.
Quinine, a formula for subcutaneous injections, 56.
  in pulmonary inflammations, 50.
Quinsy, 535.
  antifebrin in, 604.

RACHITIC pseudo-paralysis, 694.
Radical cure of nasal catarrh, 637.
Recognized integrity in the medical profession, 124.
Recovery after destruction of the larynx, 586.
Rectification of face presentations, the, 338.
Recurrence of cancer of the breast after amputation, 672.
  mammary carcinoma, 309.
Refinement of abdominal surgery having an influence on general surgery, 340.
Rejuvenescence of elderly women, 206.
Relapses, pathology of, 190.
Relation between light and electricity, 593.
Removal of freckles, 146.
  plaster-of-Paris dressing, 668.
Renal glomeruli, function of, 129.
Report of the United States Board of Inquiry concerning epidemic diseases among swine, 207.
Respiration, practical studies on the nervous and mechanical government of, 709.
Responsibility of the drunkard, 479.
Rest in the treatment of pulmonary consumption, 318.
Restoration of the bladder after excision, 165.
  of the integument of the upper lid, 171.
Rhinitis, chronic, 320.
Ringworm, 718.
Roach destroyers, 667.
Rupture of the liver, 471.
  of the uterus, treatment of, 335.

SACCHARINE, 530.
  harmlessness of, 568.
Salicylic acid in the treatment of malignant scarlatina, 282.
Salicylate in gonorrhœa, 718.
Saline subcutaneous injections in anæmia, the value of, 535.
Salt and microbes, 571.
Sanitary conditions of Munich and Memphis, 367.
Sanitary resorts, 389.
Sarcoma of the ovary, with report of two cases successfully treated by laparotomy, 492.
Scarlatina, salicylic acid in the treatment of malignant, 282.
Scarlet fever, prophylaxis of, 525.
Schuylkill river water, 205.
Seborrhœic processes relations of the to some other affections of the skin,, 519.
Senile dentition, a case of, 426.
Sewage, new process for treatment of, 180.
Sheaves, 204.
Shuttle pulse and its portent in practice, 707.
Significance of the crepitant rale, 184.
Signs of progress in education, 231.
Silver gilders' cramp, 39.
Sioux Indians, consumption among, 148.
Skull, closure of defects in, 445.
SOCIETY REPORTS:
  Academy of Medicine, 9–720.
  American Association of Obstetricians and Gynecologists, 205–375.
  American Rhinological Association, 352.
  Belmont County Medical Society, 655.
  Clinical Society of London, 552.
  Cincinnati Medical Society, 419–724.
  Harveian Society of London, 628.
  Laryngological and Rhinological Association, 95.
  Miami Valley Medical Society, 350.
  Mississippi Valley Medical Association, 99, 205, 283, 310.
  New York Academy of Medicine, 694.
  Philadelphia County Medical Society, 3, 446, 547.
  Shelby County Medical Society, 350.
  South-Western Ohio Medical Society, 257, 351, 450.
  Southern Surgical and Gynecological Association, 287, 476.
  Southern Tri-State Medical Society, 258, 391.
Soldiers, effects of our late war on, 531.
Solvent for diphtheritic membrane, 482.
Somnal and phenylurethan, 667.
Sore nipples, 243, 641.
Spina bifida, 572.
Sprains, treatment of, 535.
Spread of leprosy, 86.
Steam, Von Esmarch on the disinfecting action of, 99.
Sterilized lint, 552.
Stomach, enlargement of the, 183.
Strangling in utero of twins, 445.
Strangulated inguino-scrotal hernia of huge proportions, 3.
Strophanthus for dyspnœa, 2.
Strychnia in alcoholism, 3 7.
Stuttering, 664.
Sub-normal temperature during second week of typhoid fever, 415.
Sugar of milk as a diuretic, 617.
Sulfonal, 179, 204.
Sulphur, use of in various disorders of the alimentary canal and liver, 54.
Suppuration, a theory of, 292.
Suppurative hepatitis, 715.
Supra-vaginal hysterectomy: extra-peritoneal dry treatment of the pedicle, 376.
Surgery of the kidney, 47.
Surgical dressings, practical points about, 293.
  interference in acute intestinal obstruction, 224.
  practice, very hot compresses in, 164.
  treatment of abscess of the lung and empyema, 270.
Suspension in locomotor ataxy and atrophy of the optic nerve, 225, 227.
Sutures in abdominal section and the Cæsarean operation, 184.
  and ligatures: what material shall we use? 381.
  in abdominal section, 98.
  within the abdomen, 226.
Sycosis, treatment of, 53.
Sympathetic affections of the eyes resulting from diseases of the nasal passages, 464.

Synovitis, antiseptic irrigation for chronic, 87.
Syphilis: its frauds and its disappointments, and treatment of, 16, 481, 640.
  hereditary, 672.
  mercurial injection for, 539,
  subcutaneous injections in, 575.
  transmission of by surgical instruments, 640.
Syphilitic phenomena, the local treatment of, 467.

TEETH, on the treatment of devitalized, 517.
  to clean the, 512.
Telephone as a cause of ear troubles, 483.
Temperature in disease, 320.
Tertiary syphilis and the conditions for its development, 481.
Test for bile in urine, 165.
  for blood, 414.
Tetanus, bacillus of, 684.
  the treatment of, 602.
The Evil that has been said of Doctors, 24-57.
Tne International World's Fair, 206.
The lament of the cultured gonococcus, 78.
The medical department of the United States Navy, 698.
The physician and his journals, 349.
The scientific uses of very high towers, 592.
Theory of suppuration, 292.
Thomas' splint, 696.
Thrombosis and cerebral abscesses, 483.
Thumb-sucking, 708.
Tinea tonsurans, the treatment of, 245.
Tonsils in phthisis, 229.
Torsion of arteries for the arrest of hemorrhage, 573.
Torticollis, operation for, 255.
Torture of piano practice, 352.
Traumatic neurosis, 241.
Traumatic tetanus cured by large doses of hydrochlorate ot pilocarpine in hypodermic injections, 155.
Trephining of the pelvis for suppurative psoitis, 50.
Trichinæ with epithelioma, 123.
Trusteeing drunkards, 169.
Tubercle, the prophylaxis of, 186.
Tuberculosis and actinomycosis, 136.
  contagiousness of, 405.
  constitutional susceptibility to, 276.
  heredity of, 318.
  in children, treatment of, 164, 482.
  in sleeping-cars, 167.
  of joints, 604.
  prophylaxis of, 316.
  the spread of, 157.
Tuberculous ulcerations, camphorated naphthol in, 297.
Tumors, cystic, 75.
  micro-organisms of malignant, 660.
Two fingers for vaginal examination, 259.
Typhoid fever, alarming cardiac symptoms following, 518.
  antisepsis in, 730, 563.
  colon-flushing in, 533.
  in children, nephritis and albuminuria in. 414.
  opium in the intestinal hemorrhage of, 43.
  sub-normal temperature during the second week of, 415.
Turpentine in post-partum hemorrhage, 133.
  internal use of in diphtheria, 719.

ULCER, gastric, 115.
  of the stomach, 669.
Ulceration of the cornea, a report of one hundred cases of, 200.
Unalterable iodide of potassium ointment, 93.
Urachus, congenital sinus of, 331.
Ural, a new hypnotic, 619.
Urinary organs, cocaine in the treatment of, 239.
Urine, antipyrine in incontinence of, 392.
  test for bile in, 165.
Urticaria, antipyrine in chronic nervous, 273.
Uterine fibroids, the treatment of, 131.
Uterus, treatment of rupture of the, 335.

VACCINATION syphilis, the differential diagnosis of, 640.
Vacation melange: Off with the old and on with the new, 285.
Vaginal examination, 259.
  hysterectomy, 375.
  hysterectomy for cancer, 621.
Value of beef-tea as a nutrient, 531.
  of a bald head, 591.
Valvular diseases of the heart, 291.
Version, forceps and, 385.
Vertigo from constipation, 133.
Very hot compresses in surgical practice, 164.
Vesical calculus, errors of physician and patient in a case of, 275.
Vibration in cycling, 74.
Vienna Anglo-American Medical Association, 564.
Village of Markley as a refuge for children, 234.
Visceral new growths, the distribution of, 563.
Vision, headache due to disorders of, 253.
Vocal cords and the hyo-epiglottidean ligament, 269.
Volvulus, 691.
Vomiting in pregnancy, 179, 623.
  of pregnancy treated with menthol, 688.
Von Esmarch on the disinfecting action of steam, 99.

WARNING for the bathing season, 180.
Warts, tincture of iodine for, 521.
Water-gas, poisonous effects of, 588.
Water we drink and a park, 454.
  Schuylkill river, 205.
Waters, on bitter, 119.
Weak heart and its treatment, 134.
Wearing out of the eyes, 288.
What dressing shall be next the wound? 615.
What shall we feed women on after confinement? 243.
What will we do with the labor of the criminal convict? 249.
Whooping-cough, bromoform in, 564.
  treatment of, 508.
Woman in the lecture-room, 426.
Woman's hospital and a medical college, 474.
Women, instruction for, 568.

THE

CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, July 6, 1889. *WHOLE VOLUME LXII.*

Original Articles.

A CASE OF PUERPERAL FEVER.

Reported to the Academy of Medicine, May 26, 1889,

By W. S. CHRISTOPHER, M.D., Cincinnati.

I was recently requested by Dr. Carson to attend one of his patients in confinement. On reaching the case, I found the lady, a primipara, very much distressed by the pains which she was suffering, and on examination found the os dilated about two inches and the membranes ruptured. The membranes had ruptured some four hours previously, and the duration of labor at this time had been about eight hours. Chloroform was now administered during the pains, with the effect of diminishing the acuteness of the suffering and hastening the dilatation of the os. The head descended in occipito-posterior position to near the floor of the pelvis, where it remained for about an hour, when forceps were applied and the delivery of the head completed. The face of the child was deeply cyanosed when the head was born; the cord was wound about the neck and compressed between the child's chest and the pubic bone, so that its pulsation ceased. The delivery of the body was rapidly made by means of abdominal pressure, and the asphyxiated child soon recovered and cried. Fifteen or twenty minutes later the child again became unconscious, respiration almost ceased, and although the heart's action continued good, there was no cyanosis. At the end of an hour, during which several times the child seemed about to recover, it died.

The after-birth was delivered without any difficulty, and was entire. The perineum was torn almost to the rectum, but the anal sphincter was not involved. Serrefines were applied, and removed on the third day without having produced any good effect.

Following the delivery, the mother rested comfortably. In view of the death of the child, atropia was administered with the hope of diminishing the milk secretion, but so small a dose as 1-96th of a grain produced a distinct scarlet eruption, without, however, dilating the pupils. Notwithstanding the continued administration of the atropia, the breasts began to fill up at the end of the third day, but under the free use of atropia internally, belladonna ointment locally, hot applications, and suspension, the patient was saved any severe suffering in this direction, and in a few days the breasts assumed a quiescent state.

In the meantime the lochial discharge was very scanty, and was not increased under the use of hot applications. About the seventh day it came more freely.

At the end of the fourth day after the confinement the temperature, which up to this time had been normal, rose to 100°, and on the following morning was 104°, and was the same in the evening with a pulse of 150 and distinct chilly sensations during the day. At this point Dr. Carson saw the case.

At the beginning of the fifth day the conditions were as follows: Breasts still contained a few hard lumps, but were improving. Lochia scanty and not offensive. Perineal wound beginning to granulate. Bowels had been moved the day before with oil, and two very putrid stools were produced. The intestines were now much distended with gas, as indeed they had been from the first, flatulence being a usual condition with the patient. No abdominal tenderness. The temperature was 104.5° and the pulse 120 and weak. Tongue presented a heavy white coating in the center, with red edges and red tip. Moral condition not good.

From now on the temperature was combatted with antifebrin in five-grain doses, three or four of which were required during the twenty-four hours to keep the temperature down. The pulse, which at the beginning of the trouble reached 150 with a temperature of 104°, continuously improved until it reached 110 when the temperature was 104°. This state of affairs was maintained for one week, during which the tongue remained moist and coated, as already described, with only occasional patches of sordes upon the lips. The moral condition of the patient also improved.

On the seventh day, six grains of calomel were administered, and produced a single, dark, copious stool of unusual offensiveness. No reduction of temperature followed. A Seidlitz powder was then given, and several days of diarrhœa followed. The stools at first were dark, but gradually assumed an ochre color and pea-soup consistence, with an offensive odor very suggestive of typhoid fever. Still later there was a bloody stool, and at the same time some tenderness in the left iliac region, which soon disappeared. At this period there was a very slight cough, which lasted two days. At no time did there appear any typhoid eruption.

On the eleventh day the picture suddenly changed. The pulse became more rapid and weak; the abdomen became enormously distended, but not tender; the tongue became dry and dark; vomiting set in; and even the whisky, which she had been taking very freely, could no longer be retained. In addition, there developed that pecular facies, which I have always seen in puerperal fever and have never seen elsewhere. Early on the fourteenth day she died.

When the fever first made its appearance, vaginal injections of bichloride solution (2 : 8000) were resorted to, and boracic acid applied locally to the perineal wound. These measures were not taken because there was any particular indication for their use, for at no time was there any offensiveness of the lochial discharge or anything to indicate trouble in the genital tract.

So far as prophylaxis is concerned, I believe that everything that could have been done was done to prevent septic infection. A few hours before being summoned to this case I had taken a bath, and had on perfectly clean underwear. The clothes which I wore I had not had on previously for several weeks, nor had I been near any septic case of any kind for several weeks. I mention these particulars regarding my own toilet not because I consider such precautions at all necessary, or that I employ them, but because the more radical obstetricians of the present day advocate them, and because they happened to be complied with in the present case. During the two weeks which this patient lived after her confinement, I attended three labor cases and two miscarriages, in one of the latter of which there was a retained placenta, requiring two and one-half hours intra-uterine manipulation to remove it; and in none of these five women has there been any septic disturbance. During the labor of this patient, the greatest care was employed to thoroughly cleanse the hands before making vaginal examinations, and the forceps which were used were first carefully cleaned with soap and water and subsequently immersed in boiling water before they were applied. The nurse in attendance was unusually intelligent and thoroughly conversant with the latest requirements of antiseptic midwifery. The room in which the patient was confined was light and airy, and otherwise satisfactory from a hygienic standpoint. In this way the genital tract was prevented from being fouled, and, indeed, remained perfectly clean throughout the trouble. On the other hand, the intestinal canal was foul at all times, and, I take it, was the source of the infection. Whether the disease was a specific typhoid fever will admit of discussion, particularly as the patient had had typhoid some years before, in which she was attended by Dr. Carson.

(For discussion see p. 9).

STROPHANTHUS FOR DYSPNŒA. — Demme, according to the *Deutsche med. Wochenschrift*, April 11, 1889, has recommended the use of strophanthus in the case of children affected with dyspnœa in the course of chronic nephritis, in bronchial asthma, and in whooping-cough, and also to obviate dropsy in conditions of low blood pressure. He gives three drops (of the tincture) four or five times a day, and says that as a rule strophanthus should not be given to children under five years of age.—*Med. and Surg. Reporter*.

Society Reports.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

OFFICIAL REPORT.

Stated Meeting, May 22, 1889.

The President, W. W. Keen, M. D., in the Chair.

Dr. Thomas S. K. Morton reported a case of

Strangulated Inguino-Scrotal Hernia of Huge Proportions; Radical Operation; Recovery.

It has, with great truth, been said that no two cases of hernia are ever alike, and that each one as it comes to hand presents some novel feature. So much is this the case, that one is tempted to report every case of herniotomy. Therefore, some very unusual or instructive features must be present to at all justify the report of an isolated case. Such, I think, are to be found in the history of the following case, the points of which are: the size of the hernia; duration of the anæsthetic state; the contents of the sac; the question of removal of a testicle; the mode of reduction; the radical closure of the hernial opening; and the after-treatment.

Mr. M. C. B., a strong, healthy man, of almost fifty-seven years, strained himself fourteen years ago whilst pulling a heavy satchel across the floor. It caught in a splinter, and, as a result of straining to dislodge it while in a stooping position, he felt something give way in the left groin, and became exceedingly faint. Shortly after this a small, reducible, but constantly reapppearing tumor came into the scrotum, and, as time went by, became gradually larger and larger.

Several years after the first appearance of the tumor, and when it had attained quite a large size, he became subject to occasional attacks of strangulation, which always required anæsthesia for reduction. Then, after one of these attacks, a large portion of the tumor became irreducible, and so remained. After this, when the seizures came on, strangulation could always be overcome by reduction of a portion of the hernial contents, but the entire tumor never could be reduced. Several more attacks of strangulation occurred at varying times after this, when more intestine would become prolapsed, but relief was invariably obtained upon reduction of the newly prolapsed and strangulated portion. While strangulation lasted his chief symptom always was an agonizing dragging pain at the pit of his stomach. By wearing a truss over the external abdominal ring, that portion of gut which prolapsed and produced strangulation was more or less effectually kept up.

About 8 o'clock p.m., April 10, 1889, while at work in the post-office, he felt the hernia slip out, and became a little faint and sick; but after lying down for a short time continued at his work until midnight. At 1 o'clock a.m. he reached his home in West Philadelphia. His sensations were then different from anything that he had ever experienced before, and he was certain that he was about to die—on other similar occasions he had always been most confident and hopeful. At 3 o'clock a.m. he was seen by Dr. Lampen, who always heretofore had been able to reduce the strangulation by taxis. The doctor, therefore, promptly placed the patient under anæsthesia, but was unable to reduce the tumor after an hour's application of taxis. He, however, could not let up the ether on account of the patient's terrific sufferings. Ether, with an occasional application of taxis, had been kept continuously from 3 o'clock a.m. until 8 o'clock a.m., when I saw the case in consultation. The patient's condition at that time was fairly good, but he was much depressed by the prolonged anæsthesia. No fecal vomiting had occurred.

Upon examination an enormous left-sided inguino-scrotal hernia was discovered. It was fully as large as a man's head, and the skin covering it was exceedingly tense, shiny, and almost black from congestion and impeded circulation. Fluctuation was marked over the upper and outer portions of the tumor, whilst at that portion nearest the knees was present a large, semi-globular, boggy mass just beneath the skin. Consent to operation having been obtained from the wife, taxis of short duration was unsuccessfully employed, and operation at once proceeded with. Full aseptic precautions prevailed throughout. A six-inch incision was made in the line of the tumor and canal, and carried down to the sac, which was punctured and torn to an equal length. About a pint of brown-tinged odorless serum escaped from the opening, and small intestine immediately came into view. This was highly distended with flatus, almost black, suffused, and in places ecchymotic. The constriction was then sought for, and found to be at the external ring. This was incised upward and the small bowel (some three feet in length), after it had begun to change color, was, with some difficulty, reduced into the abdomen, a healthy portion first having been pulled down at each extremity to make sure that no constriction existed at a higher or lower point. Attention was now turned to the remaining prolapsed mass. This had the appearance of being an enormously hypertrophied omentum, and was not in the slightest degree strangulated or congested. At first sight I took this mass for omentum, so great was its resemblance thereto, and it was only upon most careful examination that its true nature was revealed. It proved to be the entire colon, except, possibly, its cecal extremity, which could not be distinguished in the confused mass. The discovery was made by finding deep between two large layers of fat a band of fibrous material through which muscular fibres coursed, and, later, by finding a small fecal mass in the lumen. The bowel was absolutely collapsed, practically free of feces, and deeply buried in hypertrophied fatty surroundings. The mesocolon also participated in these changes, and was likewise rendered almost indistinguishable by fat deposit. Only a longitudinal half-inch strip of bowel could anywhere be brought to sight. The epiploic appendages participated in the general hypertrophy, and were enormous. The mass was separated from its many adhesions to the sac, but from its great size after separation could not be reduced through the abdominal rings. Hence the original incision was enlarged upward upon the abdomen and downward so as to include the rings. The colon was then easily reduced, and attention turned to the sac. This was found universally adherent, and particularly to the peri-testicular tissues. It was stripped up in one piece, however, as far as the internal ring, where it was ligated in sections and the external portion cut off; the stump being held by forceps until it should be wanted later. I did not employ the method of dealing with the sac that is recommended by Macewen, because of the very large mass of perhaps devitalized tissue which it would, by that method, have been necessary to leave in the abdomen.

The left testicle was elongated, hypertrophied, and so enveloped by the sac as to give it much resemblance to a prolapsed kidney, but examination quickly demonstrated its identity also. After the sac had been stripped up, it was found that the testicle was left without any vascular attachment, except through its cord. Then arose the question whether it should be allowed to remain. This was decided in the negative for the following reasons: After separation of the sac the testicle remained without any vascular attachment except the cord; it was hypertrophied and likely would require more blood than could be conveyed to it by the perhaps occluded or bruised cord; the patient was over fifty-six years of age; the opposite organ was apparently healthy; and, most decisive of all, the pillars of the ring could not be so accurately closed with the cord running through them and so radical a result secured as if they were accurately approximated throughout. Again, had the organ been allowed to remain its life was by no means certain, and its death might have made a very dangerous complication during convalescence. Hence, the cord or pedicle was ligated high up, the testicle detached, and the stump dropped into the peritoneal cavity. The abdominal wound was then closed by strong silk sutures embracing the abdominal wall and peritoneum, and in the lower portion of the wound, also, the pillars of the ring and the abdominal extremities of the sac, thus securing an effectual closure of the entire hernial opening. The sutures embracing the sac extremities were so tied that the sac edges did not come between the pillars of the ring but were kept entirely behind, but in close apposition to their under surface. That portion of the wound which extended down upon the scrotum was obliterated by deep sutures and was not drained, but a large glass drain was carried to the bottom of the pelvis through the upper portion of the abdominal wound. The peritoneal cavity was then tremendously irrigated with hot water, the sutures were tied and an aseptic dressing applied over all. The patient urinated naturally shortly after coming out of ether, and the urine was not drawn at any time during convalescence. The cotton rope in the drain-tube was several times renewed during the first twenty hours as it became saturated.

As soon as consciousness returned he was put upon powders of calomel, gr. 1-10th, and podophyllin, gr. 1-6th, every half-hour. These he took for twelve hours, and then was placed upon one drachm of Epsom salts hourly. No food was allowed for twelve hours. Bowels moved very freely next morning with the aid of an enema. From the time of coming out of ether until the following day he was most violently restless, pitching and tossing about the bed in an uncontrollable manner. Somehow in the night he had, without the knowledge of those about him, managed to withdraw the drain-tube. This I found lying loose in the bed when I saw him early the next day. The bowels having by that time moved freely, and the belly being flat, and no pain present, I determined not to reinsert the tube unless compelled to do so later. Milk in small but increasing quantities was allowed from the twelfth hour on. Jactitation controlled by fifteen-grain doses of chloral—from first to last he never received opium in any form.

April 15. Belly slightly full. Still somewhat restless; for this more chloral. Bowels again freely moved as before. Temperature has not been above normal yet. Violent bronchitis present as a result of prolonged etherization.

April 16. Belly much more swollen, nausea and non-fecal vomiting, complains much of belly pain, racking hiccough present, but he continues nourishment and is taking champagne. Bowels not moved to-day. Decided to reinsert tube. Removed stitch at extreme upper portion of wound, and put a large glass drain down toward hollow of pelvis, and through it drew off about two ounces of turbid but odorless bloody serum. Wound in excellent condition. Left the tube in position. It was not thought necessary or prudent to wash out the peritoneal cavity. Again put him upon mercury in fractional doses. Bronchitis improving, but much purulent expectoration continues.

April 17. Bowels freely open. Small amount of serous straw-colored discharge from tube. Abdomen much more flat and no longer tender. Hiccough and vomiting continue obstinately. For latter symptoms ordered cocaine gr. 1-10th, sodii bicarb. gr. 2, cerium oxalate gr. 2; every two hours.

April 18. Vomiting and hiccough entirely under control. Bowels opened of their own accord; abdomen entirely flat and painless. Discharge had ceased, so tube was removed, as also were all of the sutures. Patient eating and sleeping well. Bronchitis about well.

April 22. Diet now unrestricted; bowels moving naturally; drain-tube wound granulating; no bronchitis.

On May 4 he sat up, and from that time his progress has been to perfect recovery, with no sign of return of the hernia. The cicatrix is dense, and apparently a perfect radical result will be gained. He will be directed, nevertheless, to wear a properly constructed support for a long while to come.

This case, of course, is not reported as one of radical cure of hernia, for whether that desideratum has been attained cannot be told until at least a year has passed. But I have considerable hope of the cure being permanent on account of complete former success with the above method—exclusive of the removal of the testicle.

DISCUSSION.

Dr. M. Price: There is no question that these cases are far more numerous than we suppose. The time will come when ether will not be used to reduce a hernia. When it cannot be done without, operation is demanded. I know of two or three cases in which death has occurred after the reduction of hernia, and the autopsy has shown that the strangulation was of peritoneal origin. Two weeks ago I operated on a woman who had had a small tumor for ten or fiften years. Strangulation occurred and she complained of great pain over the epigastrium. For this she was given cholera mixture by the family. This was on Saturday. I saw her on Monday. She had vomited some bad-smelling material, which had been thrown out. The hernia was not at all painful. Three hours later I found she had vomited a large quantity of liquid feces. I opened the abdomen, passed my hand in, and found where the bowel had passed into the internal ring. I found the point of strangulation. I then cut down over the tumor and reduced it, with the strangulation unrelieved, and pulled it up to the median incision. The bowel was almost semi-gangrenous. By application of hot water the color returned sufficiently to permit of its being allowed to remain. The woman is to-day sitting up. Immediately after recovery from the ether, I washed out the stomach with several quarts of warm water with the stomach-pump, which at once relieved the vomiting. I gave a teaspoonful of Rochelle salts every hour for five days before I got a movement of the bowels. I have no doubt in my own mind of its being the proper method to prevent peritonitis in all abdominal work. As soon as there was pain and the formation of gas the bowels began to move, and from that time on she made an uninterrupted recovery. In a case seen some six years ago, where the strangulation had existed several hours and an enormous tumor was present, I etherized the patient but could not reduce the hernia. I then cut down and opened the sac, but still the hernia could not be reduced. I then made search for the last knuckle of intestine that had come out. I then had no trouble in returning the bowel. The man recovered from the peritonitis under Epsom salts and castor oil. I have had five or six cases of irreducible hernia and have lost but one. In that case there was gangrene of the bowel and purulent peritonitis. If careful surgical measures are adopted, with purgation afterward, ninety-five per cent. of these cases will recover. I think that the only chance of saving these patients is to purge them and to keep on purging them. By bleeding them from the bowel, you will save your cases. Opium has not a shadow of a show in any of these cases.

DR. JOSEPH HOFFMAN: The first abdominal case that I had was one of strangulated hernia. I treated it with palliative measures, and, as I thought, returned the hernia. A few days later she vomited a large quantity of stercoraceous matter. This case shows the fallacy of reducing these herniæ *en masse*. The only safe way is to cut down and release the gut.

In regard to the use of salts and calomel, I think that where we find that even peritonitis exists with the belly full of pus, the use of salts and calomel reduces the peritonitis so that the belly becomes soft and pliable; there is no doubt that these agents, within limits, are almost specifics. I have not the fear of opium that some seem to have, and use it occasionally without bad results. Pain is sometimes as hard to bear as disease. If we can quiet the restlessness of the patient and at the same time act upon the bowels, I think we do a good thing.

DR. GEORGE E. SHOEMAKER: In the treatment of strangulated hernia the local use of ether has been recommended. I do not, in general, believe in anything but operation after a brief trial of well-known measures, but recently having two cases in good condition, I tried ether, a teaspoonful being poured on the tumor every five minutes. In one case the strangulation was relieved, but in the other I was obliged to operate. Both cases recovered. Dr. Morton is especially to be congratulated on the result in his case because of the excessive duration of attempts at reduction before he saw the case.

DR. JOHN B. DEAVER: I do not think that it would be a wise procedure to cut down on every case of irreducible hernia without having tried taxis. The mistake usually made is that taxis is too long prolonged. From five to eight minutes is long enough. In all these operations for strangulated hernia the operation for the radical cure should also be performed. I, however, cannot quite see that the operation performed in this case is likely to lead to a radical cure. Sewing the pillars of the ring together does not amount to much. This has been ably argued by Dr. McBurney. After obliterating the sac completely he packs the canal and allows it to heal by granulation.

I have seen several cases in which it was difficult to say with what we were dealing. In one recent case a colleague and myself were for some time perplexed to tell whether we were dealing with the testicle or intestine. In strangulated congenital hernia, the surest operation for the radical cure is to first perform castration—then dispose of the sac as we do ordinarily. The operation of forming a tunica vaginalis, and at the same time closing the abdominal opening, is not so reliable.

In regard to the after-treatment, I cannot see the philosophy in cases where the condition of the bowel approaches gangrene, of purging the patient actively. In all cases where the bowel is in that condition I have hesitated to give any irritant. These cases unquestionably call for small doses of opium, not enough to narcotize, but enough to arrest peristalsis.

Dr. J. H. Packard: It does not seem to me possible to prescribe any definite time during which taxis is to be tried. I think the attempt should be made without ether first, and then with ether. It very soon becomes apparent to the educated fingers whether success is likely to be attained or not. Moreover, the educated fingers recognize whether the bowel is slipping back as it should, or as a solid mass, with the strangulation unrelieved. Of course, the dangers of a cutting operation are far less now than formerly; but I cannot admit that a needless resort to it is justifiable. One symptom seems to me a positive indication for operative interference, viz., stercoraceous vomiting; when this occurs the knife should be used with the least possible delay. Supposing that a strangulated bowel, unliberated, has been returned into the abdomen, the symptoms will continue, and an immediate laparotomy will be indicated. Such an occurrence would seem, however, to be very rare.

One speaker has stated that in a case of purulent peritonitis he used purgatives, with the effect of relieving the condition. If he spoke advisedly, the pathological views as to this affection must have changed more than I thought. My own belief is that in such a case laparotomy should be done at once, as giving the patient his only chance of life.

Dr. Joseph Hoffman: The patient of whom I spoke was in collapse when I saw her, and could not be touched. The belly was distended, and I made up my mind that she would die. I gave her salts and calomel and the belly was reduced in size, and I operated.

Dr. J. M. Baldy: None of us would operate upon a hernia unless there were symptoms calling attention to the fact that it was strangulated. Even if the hernia were cut down upon and found not to be strangulated we should be in no worse position than those who do the radical operation for the cure of hernia, and Dr. Deaver has admitted having done twenty such operations. I have never been able to return the drainage-tube after it has been out a few hours, and Dr. Morton's success in this direction is interesting. I do not think that the educated finger can tell at once whether or not a strangulated hernia can be returned. We should not limit ourselves to a certain number of minutes. Some cases that are irreducible when first tried are readily reduced afterward, or under anæsthesia. I do not think that where there is purulent effusion we should attempt purgation. Purulent effusion in the peritoneal cavity means the knife or death. I have never found it necessary to give opium. The pain is often severe, but it lasts only a few days, and the patient can always be coaxed over this period. Dr. Deaver's objection to the use of salines in threatened gangrene of the bowel is well taken. But even if we decide to give no purgatives, I do not see why we should give opium. The slight amount of peristaltic action will do no harm, and the opium masks symptoms.

Dr. Steinbach: In a discussion before a Society of this kind we should be careful how we warn against operation. Many more cases die from unrelieved strangulation than die from operation. Even in cases where the hernia seems to have been reduced, it might have been better to cut down. In one case I cut down on the hernia, pulled down the intestine for some distance on either side of the constriction and examined it, and returned it to the abdomen. A few days later symptoms of strangulation reappeared, and it was found that another band existed in a different place. The intestine was cut all the way through to the mucosa, and required sutures. In operating it is well to pass the finger in as far as possible. I have little confidence in the radical operation. I have seen it done, and have performed it myself, but can record failures. I would strongly favor the use of salines and purgatives of other kinds after operation, and I certainly would not use opium unless it was strongly indicated.

Dr. J. H. Packard: Repeated experience has impressed it strongly upon me that the surgeon who is called upon to operate in a case of strangulated hernia should always have everything ready for suturing the bowel if this should become necessary. During last winter I had at my clinic at the Pennsylvania Hospital a man with an old rupture, strangulated, and adherent at several points to the wall of the sac. In freeing it, the outer layers of the intestinal wall gave way, and the gut could not have been safely returned into the abdomen had I not carefully sutured it. One of the lacerations required three stitches, the other two.

In the case just mentioned, I partially invaginated the sac and sewed the walls together up to the canal. After the man's recovery this attempt at radical cure seemed to have been successful; there was no impulse whatever on coughing. Such a result should always be aimed at.

I think that in every case of hernia, when the sac is laid open, the bowel should be drawn down so that the adjacent portions above and below can be examined as to their soundness. I cannot, however, endorse the practice of carrying the finger up into the abdominal cavity for the purpose of exploration, unless the inguinal canal is unusually wide and short.

Dr. T. S. K. Morton: My description of the condition of the bowel seems to have been somewhat misapprehended. It was very dark, congested, and in places ecchymotic, but by no means in a state of even incipient gangrene; for almost as soon as the strangulation was relieved it began to assume its natural color. An additional reason, which I had in mind in at once placing the patient upon laxatives, was that the parts returned to the abdomen were covered with recently separated adhesions which I was loath to have form attachments in such a way as possibly to form a new anchorage in a manner which might give rise to kinking or constriction of the bowel, so gave the salts in order that the intestine should be in proper position for most successfully carrying on its functions before it should acquire new adhesions. I regard the drawing down of each end of the constricted portion of bowel before returning it to the abdomen as a very important point, for I not long since saw a case which had to be subjected to a second operation because this precaution had not been taken when a second constriction existed at a higher point. If the gut can be drawn down in the wound until healthy surfaces present, we can be sure that no other constriction exists which can be relieved or even recognized through the herniotomy wound. But if we find, upon so pulling the bowel down, that it becomes progressively more and more congested, we can be almost sure that a second constriction exists not far off, which can also be reached and remedied. With regard to giving salts after returning a portion of bowel, I would say that I would not hesitate to administer them in *any* case, for I would never return bowel in any case where I was not absolutely certain of its vitality. If, after waiting a reasonable time, the bowel did not give indubitable signs of life, I would most certainly deal with it by other means than that of returning it to the abdomen, in hopes that it might live.

I regret that I did not make it more plain that this case is not reported as a case of radical cure, for at least a year should elapse between operation and the report of such cases; it is recited simply as a case of unusual interest. However, I am hopeful of a radical result from the fact that two years ago I operated in the same manner upon a somewhat similar case, and up to date there has been no return of the hernia.

The Opium Habit.—Dr. J. C. Wilson thus sums up his conclusions upon this subject:

1. No confirmed case of the opium habit can be satisfactorily treated at home. Suitable rooms in a private boarding house are available for a large proportion of the patients, including those who cannot be induced to enter a public or private institution.

2. Hypodermic injections of morphine, administered by the physician or by a medical assistant, constitute the best means of administering the drug during its gradual withdrawal.

3. The substitution of other narcotics, while occasionally required for special symptoms, does not constitute any necessary part of the treatment.

4. Many of the more serious symptoms following the withdrawal of the drug are prevented by the systematic administration of suitable food at short intervals and the judicious use of alcoholic stimulants.

5. The insomnia and asthenia of convalescence are incidental to the re-adjustment of the nervous system to normal conditions. So long as these symptoms persist, there is danger of early relapse, and the patient should be kept under observation.

6. The convalescent must be warned that in the future the first dose of opium or morphine, either by the mouth or hypodermically, is likely to lead to the formation of the habit anew.—*Med. and Surg. Reporter.*

Pepsin in Infantile Diarrhœa.

Statistics show that the mortality rate of infantile diarrhœa, as it manifests itself in the summer months, is higher than that of any other disease.

Unhygienic conditions and improper nourishment, aggravated by high temperature, are the chief causes assigned for the prevalence of this disorder. How to effectually remove or overcome these causes is a question of the gravest importance to sanitarians and physicians. It must be admitted, however, that these conditions, for a large portion of infantile humanity, must continue to exist, and consequently the problem presented to physicians is how to cure the disease, in spite of unfavorable conditions, when it has firmly established itself. The solution of this question often taxes the ingenuity and medical skill of the attendant in vain.

How shall the conditions present best be met? To answer this query has inspired exhaustive contributions from the pens of our most learned medical writers. It is admitted by all that one of the causes which incites and perpetuates the gastric and intestinal inflammation is undigested, or partly digested, fermenting milk or other food, the decomposition of which is accompanied by the development of ptomaines and other toxic principles. It is as an aid to the removal of this cause, both in predigesting milk or other food before it is given, and in digesting fermented undigested food in the stomach, that pepsin is indicated in infantile diarrhœa, and its efficacy has been attested by many well known medical writers. (See *J. Lewis Smith, M. D., Archives of Pediatrics, Sept., '86, p. 518; Nov., '86, p. 639; Nov., 1864, p. 424. Prof. Vocher, of Berlin Archiv. f. Kinderh, vol. 9, p. 3, Dr. I. N. Love, St. Louis Weekly Medical Review, Aug., '88. T. Lauder Brunton, Diseases of Digestion, p. 291. A. Holt, N. Y. Archiv. Pediatrics, 1886, p. 732. A. G. Bigelow, Archiv. Pediatrics, 1884, p. 430. Discussion at German Medical Cangress, at Salzburg, 1881, by Demme, Biedert, Gerhardt, Henoch, Steffen, Thomas, Soltman, Pfeiffer. Prof. Leeds, Archiv. Ped. 1864, p. 421, etc.*

With the improvements that have of late been made in the purity, quality and digestive efficacy of Pepsin, this agent is likely to play a more important and definite part in the treatment of intestinal inflammations than ever before. Its ease of administration, its certainty of action when a proper product is administered, will, we believe, lead to its extensive use.

We say *proper product*, advisedly, for it is well known that many pepsin products are absolutely inert or of very low digestive power, or infested with chemical poisons (leucomaines and ptomaines—see Vaughan and Novy's Ptomaines and Leucomaines), the disagreeable odor they possess being significant of putrefaction.

It goes without saying that a product of the latter type would only augment the inflamation, and physicians should look well to the character of the pepsin used. It should, in the first place, be absolutely devoid of the odor characteristic of putrefying mucus, and in the second place, it should freely dissolve in water at all temperatures, for, as solubility is one of the distinguishing peculiarities of the unorganized ferments, it is the best evidence of purity in a pepsin.

We guarantee the purity, activity and solubility of our pepsin products. Our pepsin is absolutely free from odor, and has been shown by expert examination to be free from ptomaines and leucomaines, and demonstrated by an exhaustive comparative test to possess twice the digestive power of the most active hitherto introduced. (See Observations on Digestive Ferments, by R. H. Chittenden, Ph. D., *Phila. Medical News*, February 16, 1889.

In raising the standard of digestive strength by our investigations, we have adopted 1 to 2,000, forty times that required by the last pharmacopœia, believing this strength would best meet practical requirements. We are, however, prepared to supply pepsins of almost any strength up to a product capable of dissolving 6,000 times its weight of albumin.

Since a 1 to 2,000 pepsin has been proven to be amply efficient and most convenient for making the officinal preparations, it is a question if a higher power pepsin, of which an inconveniently small dose would be required, would not unnecessarily embarrass dispensers without accomplishing practically any better results.

It is not probable that the pharmacopœia will ever adopt a standard for pepsin higher than that which we now observe, and it will only be by recognizing this authority that the term "pepsin" can ever come to mean a preparation of definite digestive strength. As it now is, unless some particular brand is specified, a pharmacist is justified in putting up the most worthless products on his prescriptions.

Sample of Pepsinum Purum in scales or in powder, and reprints of articles by eminent authorities on pepsin and pancreatin, list of preparations, and information of methods of peptonizing food, mailed free on request.

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Dose*—*Internally: One teaspoonful three or more times a day (as indicated), either full strength, or diluted, as necessary for varied conditions.

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RHEUMATISM.

DIETETIC NOTE.—A fruit and vegetable diet is most favorable for patients with chronic rheumatic troubles.

Allowed.—Beef and mutton in moderation, with horse-radish as a relish; fish and eggs, green vegetables and fruit, especially lemons. The skimmed milk diet has been advocated by some authors.

Avoid.—Starchy and saccharine food; all malt liquors, wines and coffee.

ACADEMY OF MEDICINE.

OFFICIAL REPORT.

Meeting of May 27, 1889.

The President, WM. JUDKINS, M.D., in the Chair.

G. A. FACKLER, M.D., Secretary.

DR. W. S. CHRISTOPHER read a paper entitled

A Case of Puerperal Fever (see p. 1).

DISCUSSION.

DR. REAMY considered it a misfortune that a post-mortem had not been made, since this would have settled the question as to typhoid fever. He did not arise to antagonize the view that the infection was received from the alimentary canal, because this might have been true.

Although the case and its symptoms were admirably reported and the treatment of the subject intelligent and scientific, still it was not clear to the speaker that the patient did not die of typhoid fever.

The absence of the eruption seems about the only contradictory evidence. The variation of the temperature and pulse chart from the ordinary curves may be attributed to the parturient state. The speaker had seen a number of cases of typhoid occurring in the lying-in woman, and always found the symptoms modified.

It is a significant fact that the symptoms did not develop until fully four days after delivery. It seems fair not to exclude the lesions of the genital tract. The position was occipito-posterior. The woman was delivered after a short period with the forceps. Unless the structures were soft and the head small, there are few obstetricians who could deliver a primipara occipito-posterior position with forceps without tearing. The reporter of the case probably had very good reasons for not allowing the head to rotate spontaneously or to effect rotation by manual manipulation or by forceps. Here, then, we have a delivery in a primipara and the perineum torn to the rectum; hence, an extensive traumatism.

The ordinary bacteria of decomposition which we find in decomposing fluids are competent to bring on fever and to prevent granulation. Up to death the wound in this case had not healed. If not (especially after the edges were approximated by surgical skill), it is very probable that the granulations did not amount to much. But the ordinary bacteria of decomposition are not the kind that are likely to produce septic infection. These may be found in many structures. In the blood are found the micrococci of septicæmia and pyæmia. They are not only capable of subsisting there, but also of propagating and producing ptomaines.

All know that the diptheritic deposits found in these cases are composed mainly of these micrococci.

The fact that the symptoms did not develop until the fourth day shows that Dr. Christopher did not infect the woman. The disease, as a rule, develops by the third day after delivery. The absence of offensive lochial discharges is not a bar to the supposition that the infectious material entered the genital tract. The most fatal cases encountered by the speaker were not accompanied by any odor. This is found when decomposition is going on, and is not a mark of septic infection. Hence, also, the bad odor of the alvine discharges is scarcely proof that infection proceeded from that source.

The speaker, hence, questions but does not deny the conclusions arrived at in the paper. He referred to a case in point. Last year a case occurred in the Hospital, in which the symptoms developed five days after delivery. The symptoms, including tympanites, were very severe. A post-mortem scarcely showed any evidences of a lesion, until search was made under the psoas, where a large depot of pus was found.

When there exists a large lesion of the genital tract, unhealed, notwithstanding coaptation and cleanliness, in a woman delivered with the forceps, the position occipito-posterior, eight hours in labor before seen, it seems that we have enough to explain the introduction of septic infectious material without invoking the aid of the alimentary tract.

DR. RACHFORD said that he knew something of the case previous to death. Dr. Christopher had narrated the history to him when the patient had had fever for a period of four days. He then gave it as his opinion that the case was one of typhoid fever, arriving at the diagnosis by exclusion, since at this time no pronounced symptoms of typhoid had developed.

Two definite forms of puerperal fever are recognized:

The first, which is, in fact, the only true puerperal fever, is due to the putrefaction of retained material in the uterine cavity. This is purely a local disease; the germs causing the disease do not enter the body, but simply act by the production of poisonous ptomaines from the decomposition of retained albuminous matter in the uterine canal, and the constitutional symptoms are produced by the absorption of these ptomaines. In this form the characteristic symptom is an offensive lochial discharge; the prognosis is favorable, the symptoms appear not earlier than the third day, and good results follow intra-uterine injections. It is plain that Dr. Christopher's case was not one of this nature.

The second form of so-called puerperal fever is a true septicæmia. This is purely a constitutional disease, the uterine canal only serving as the gateway through which the septic germs, such as the pus-formers, enter the body. This form of disease is produced by direct inoculation. The germs must be carried to the parts fitted by childbirth for their reception. The onset of the disease is sudden, and the patient is dangerously ill from the beginning. The symptoms usually appear within twenty-four hours after *inoculation*. There is usually a severe chill, followed by a rapid rise in temperature. The prognosis is unfavorable, and intra-uterine injections do no good.

Certainly, Dr. Christopher's case does not conform to this type. The fever appeared on the fifth day, and after five days of fever the patient's general condition was not such as to preclude a favorable prognosis. The fact that the parts were not interfered with for four days after delivery would strongly indicate that if inoculation occurred at all it must have been at the time of delivery, but the thorough antiseptic precautions observed by Dr. Christopher in the management of this case, as well as the late appearance of the symptoms, almost preclude the idea that inoculation could have occurred at this time.

By exclusion, therefore, he arrived at the opinion that the case was not one of puerperal fever, and ventured the opinion that typhoid fever offered the best explanation for the symptoms. The subsequent history of the case (the putrid diarrhœa, the bloody stools, the tenderness in the right inguinal region, and the tympanites) has confirmed him in that view.

Dr. Rachford wished also to add that the infectious diseases, such as scarlet fever, diphtheria and erysipelas, could not, properly speaking, be spoken of as causes of puerperal septicæmia. These diseases have a characteristic symptomatology, and in this manner, and *only* in this manner, are they recognized. Erysipelas, diphtheria, scarlet fever and typhoid fever in the puerperal state must be known by the same symptoms as they are at other times. The germ of erysipelas can produce only erysipelas, yet almost all writers on this subject name erysipelas as one of the chief causes of a form of puerperal fever which has none of the characteristic symptoms of erysipelas. The speaker thought that the error in the observations on which this opinion was based lay in their failure to recognize that it is the septic process which so frequently complicates erysipelas that furnishes the morbific agent in these cases, and not the erysipelas itself.

Dr. Reamy remarked that his statement did not refer to the production of puerperal fever by the micrococcus of diphtheria. He had stated that in every case of puerperal fever which had been examined the same germs were found, which not only act themselves but develop the material that acts upon the centres. His statement was that the *so-called* diphtheritic patches which are found along the genital canal in some cases of puerperal fever are composed largely of micrococci. It is well enough to remember that the identity of some varieties of micrococci is not reduced to an absolute certainty, but the streptococcus pyogenes is the organism found in puerperal infection.

Prophylaxis is the true thing—its results are brilliant. But the disease is very fatal. In his opinion, thirty per cent. of all cases terminate fatally. It has been proven that the same form of disease furnishes a poison intensely destructive in character and able to grow upon almost any soil.

While Dr. Rachford's statements are correct in the main, still he would not sustain him in that in reference to the development of symptoms in the violent, fatal cases within three days after infection. This is usual, but he had witnessed fatal cases where the disease did not develop until the fourth day, and in a few cases on the fifth day.

Dr. Giles S. Mitchell stated that, with the exception of Fordyce Barker, he knew of no authority who believed in a specific puerperal fever. The name puerperal fever is unfortunate; puerperal septicæmia expresses more clearly the condidition. The germs of erysipelas, scarlatina, diphtheria, rubeola, or any other of the acute infectious diseases, will, when introduced into the system of the lying-in woman, produce puerperal fever — so-called. There is no one variety of cocci invariably found in fatal cases of child-bed fever. The speaker recognized heterogenetic infection in the vast majority of cases, but was not prepared to agree with the most recent authorities in that auto-infection was impossible.

Retained fragments of placenta or membrane certainly furnish the nidus for the rapid growth and development of septic germs, and it is quite probable that in some instances the germs are already in the vaginal canal, and not carried there by the fingers of the accoucheur.

Speaker thought the case reported might be appropriately termed puerperal typhoid fever. The putrid stools, coming in close contact with the perineal wound, furnished the opportunity for infection.

Speaker did not favor the method of administering chloroform during the first stage of labor. His plan was that recommended by the majority of obstetric writers, *i.e.*, chloral during the first stage of labor and chloroform during the second. He was confident in the belief that the prolonged use of chloroform favored asphyxiation of the child.

Dr. E. W. Mitchell was surprised to hear any one advocate the doctrine of auto-infection. He did not think that he who studied the subject of infection would hesitate in believing that if placental tissue remain buried, so as not to receive the proper germs, infection and decomposition would be impossible.

The speaker did not believe that the child could have been injured by the chloroform, and he believed Dr. Christopher was justified in administering the anæsthetic. Under certain circumstances this can be carried on safely for a number of hours.

It seems that the symptoms in the case developed rather more suddenly than is usual in typhoid fever. On the other hand, the typical time for the development of puerperal fever is, by authors, given as the third day after delivery.

In the absence of a post-mortem we cannot rule out infection from the alimentary canal, as ingeniously suggested by Dr. Christopher, nor typhoid fever, but he was inclined to accept it as a case of puerperal septicæmia.

Dr. Julia Carpenter said the reporter of the case spoke of his treatment to overcome the formation of milk.

There is a method so simple and so efficient that if once tried one would never return to plasters, salves and medicines. This method the speaker was taught at the Woman's College in Philadelphia, and she had never used any other, as it was always successful, and she had tried it many times. This method is bandaging. She uses for this purpose a broad piece of soft muslin. It is passed around the body and fastened together with safety-pins. It must be quite snug above and below the glands, and as tight over them as is comfortable for the patient. Shoulder straps are then attached to aid in keeping the bandage in place. She usually applies this on the second day. When, the next day, a little enlargement begins, if the pressure is too uncomfortable, the bandage can be loosened a little. The fulness may last a day or two, when it gradually subsides and the bandage becomes quite loose. It can then be removed and the matter is then ended.

The object of the bandage is to prevent, by pressure, the increased circulation in the glands, and as a result of that prevent the formation of milk She had never known any milk fever to accompany this treatment.

The great gain by this method is that there are no uncleanly ointments, no painful rubbings or manipulations of any kind just at a time when rest is most needed; and especially no medicines, for with every medicine there are always effects that are not wanted, even when one gets the one desired. Then, too, it is most grateful to the patient to be so comfortably let alone with safety.

This method is also applicable at the end of lactation to stop the secretion. The bandage is applied, of course, after the glands have thoroughly emptied. If necessary to loosen it a little once or twice, it can be again tightened.

The method, referred to by Dr. Reamy,

of doing absolutely nothing, the speaker had seen used in a hospital in Boston. If no treatment at all is used, the glands enlarge greatly and become of stony hardness. If absolutely not touched this will all subside again. But the patient has the very great discomfort of all this weight, together with no small amount of anxiety of mind; and, as it looks so very threatening, the patient cannot always be trusted to let them alone.

Dr. Reamy remarked that if the breasts be not touched and left completely to themselves, abscess will develop in not one out of twenty-five cases.

Dr. Christopher stated, in conclusion, that the chief importance of the case, from a medical standpoint, lay in the determination of the origin of the infection. While in the absence of an autopsy it is, of course, impossible to settle this question with scientific accuracy, yet, nevertheless, the clinical aspects should not be entirely ignored, and certainly affort much light. It is at present the fashion to ascribe all cases of puerperal septicæmia to infection received through the genital tract, and while in the great majority of cases this is undoubtedly true, yet still other ways of infection are possible, and should be recognized, lest in our anxiety to keep the genital tract clean we overlook the true source of the infection in a given case, and waste our efforts in a useless attempt to purify that which is already clean. As to whether or not the absence of offensive lochia would indicate that the infection had entered through the genital tract, it has been argued that offensive lochia merely indicate decomposition, and that a number of fatal cases of puerperal fever had been seen by the speaker offering this argument in which the lochia were not offensive. To the latter half of this statement it may be replied that these cases are not reported in full, and that we therefore have no opportunity of determining whether these particular cases were not, indeed, instances of infection from a source other than the genital tract, and to assume the contrary, merely because they were cases of puerperal fever, is to beg the question at issue.

Ptomaines are produced only in the decomposition of albuminous substances. These decompositions are nearly always, if not always, putrid, whatever be the micro-organism which produced them. It is, moreover, being admitted on all sides more and more that the ptomaines are the means by which the micro-organisms produce their effects. It therefore follows that we are justified, in the absence of positive proof to the contrary, in referring the symptom-producing ptomaines in a given case to the putrid focus in that case, rather than to a non-focus case. It would also seem that, inasmuch as a condition of putridity is the most favorable nidus for the development of micro-organisms, that given in a certain case a putrid mass and a lesion in one part of the body, and the absence of putridity and the presence of a lesion in another part of the body, that the subsequent infection proceeds from the lesion in connection with the putrid mass.

In the present case, we had a sluggish bowel, which was largely the result of chronic dilatation of its walls from long-continued flatulence, itself the result of gaseous fermentation. There was therefore present conditions favorable to the development there of a putrid fermentation. This putrid fermentation occurred, and throughout there was absence of genital symptoms. Moreover, the symptoms were those of typhoid fever, which is essentially a disease of bowel origin, and therefore we are the more justified in holding that the particular causes of the symptoms in this case had their origin in the bowel. Throughout the greater part of its course the case was symptomatically a typhoid. Was it specifically a typhoid? This question we cannot answer from clinical details alone, nor is it probable that an autopsy would have settled it, as it is not unlikely that typhoid is but the collective title of a number of diseases. In its termination, the case was certainly an instance of what is included under the somewhat lax title of puerperal septicæmia.

I trust that the importance of this case in directing attention to sources of infection other than the genital tract in cases of puerperal fever will be appreciated.

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EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, July 6, 1889.

Correspondence.

THE AMERICAN MEDICAL ASSOCIATION.

NEWPORT, R.I., June 29, 1889.

The proceedings of the second day were opened with the Address on General Medicine, by Dr. Wm. Pepper, of Philadelphia. This address was a scholarly prepared biography of Benjamin Rush, and, although quite long, was made so interesting as to be exceedingly well received and attentively heard to the end. Following this address, some general business was brought up, including proposed amendments to the constitution. In this, as on similar occasions at every meeting of this Association for forty years, the hand of the now venerable Nestor of the Association must needs grasp the helm in order to guide the craft through imaginary as well as apparently real breakers. We could not but feel that perhaps the Association has suffered in usefulness through the too great prominence of one man in all its proceedings.

THIRD DAY.

The proceedings were opened by the presentation of the report of the Trustees of the *Journal*, which, singularly, did not in its last issue contain a mention of the meeting of the Association, while three other weekly medical journals, including the LANCET-CLINIC, printed the entire address of the President and reports of the first day's proceedings. The *Journal* needs an experienced editor and publisher or it will forever be in the rear instead of at the front of all similar publications.

Following this report came the Address in Surgery, by Prof. P. S. Conner, of this city. This address we will give our readers in our next issue.

The Nominating Committee presented for

President—E. M. Moore, of Rochester, N. Y.

Vice-Presidents—J. W. Jackson, of Missouri; W. W. Kemble, of Minnesota; J. H. Warren, of Massachusetts; and T. B. Evans, of Maryland.

Permanent Secretary—W. B. Atkinson, of Philadelphia.

Treasurer—R. J. Dunglison, of Philadelphia.

Librarian—C. H. A. Kleinschmidt, of Washington, D. C.

Judicial Council—N. S. Davis, of Chicago; J. H. Brown, of Kentucky; W. Brodie, of Detroit; R. C. Moore, of Nebraska; Gillespie, of Tennessee; T. A. Forster, of Maine; J. B. S. Holmes, of Georgia.

Trustees of the Journal—T. O. Hooper, of Arkansas; Alonzo Garcelon, of Maine; I. N. Love, of St. Louis; W. W. Dawson, of Cincinnati.

Address in Medicine—N. S. Davis, of Chicago.

Address in Surgery—Hunter McGuire, of Richmond, Va.

Address in State Medicine— A. L. Carrol, of New York.

Place of Next Meeting—Nashville, the third Tuesday in May, 1890.

Sir James Grant, of Ottawa, was introduced by the President, and in a most eloquent manner thanked the Association for its cordial welcome and kind treatment, expressing his surprise as well as gratification at the vast amount of valuable work now being done by the Association and the entire medical profession of this country.

The address of Prof. Welch in State Medicine was a most able production, and presented the inestimable value of the microscope for purposes of investigation. We will in a future issue publish this valuable address.

The special work of the various Sections was the best exhibit of scientific labor by American physicians that has ever been made. This we know is an extravagant statement, but their reports — some of which we will hereafter publish in detail— will bear out the assertion.

The social features of the occasion were excellent, and did credit to the local profession of Newport and their aids, the members of the Rhode Island State Medical Society.

The United States Army and Navy officers stationed in the vicinity of Newport also acted well and hospitably their part in providing special receptions, drills, and other features at the various forts and ships.

The eminent historian and literateur, Bancroft, sent more than four hundred blooming roses for decoration of members on the evening of the reception given at the Ocean House. Our host, Mr. Weaver, of this large hotel, deserves most honorable mention for his untiring efforts to furnish accommodations to all that came to the meeting.

On the last day of the meeting the Rhode Island State Medical Society tendered the Association an invitation to a clam-bake at Rocky Point. The clam-bake is an institution peculiar to Rhode Island, and on this occasion was enjoyed by nearly the entire body of members present at the memorable fortieth meeting of the Association. Rocky Point is some twenty-four miles from Newport, and was reached in a couple of hours by steamer. While on the steamer we were delightfully entertained by Dr. Turner and daughter, who pointed out the many places of interest and inducted us into the habits and mysteries of the clam. To Dr. and Miss Turner we are under lasting obligations for their hospitable attentions.

The fortieth session of the American Medical Association adjourned to meet in Nashville next May.

THE BRAIN AND MORAL CULTURE.—Prof. Meynert considers the brain as an inhibitory apparatus against the lower and more instinctive natural impulses. The higher its development, the greater is the tendency to subordinate the particular to the general, and even in the lower animals we see a high state of social growth, as in the communities of bees and ants. In the development of the human individual, we see in the infant a being entirely wrapped in its instincts of self-preservation, the "primary ego" is predominant and the child is an egoistic parasite. As development goes on this standpoint is passed, conscience assumes its priority, the brain acts as a check on the purely vegetative functions, and the "secondary ego" takes precedence over the primary one; and this is the general order of society we designate as civilization or social order (Gesittung). If this inhibition becomes weakened, as in progressive paralysis, then we see the disordered predominance of the natural instincts or impulses, and when it is totally lost the individual is in the position of a criminal, who opposes the ethical order of society; a parasite, and one of the worst kind, one who not only lives upon his host, but destroys him in so doing.—*American Jour. of Insanity.*

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations. LEONARD FREEMAN, M.D.,
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HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending June 29, 1889.

Ward.	Measles. Cases.	Measles. Deaths.	Scarlet Fever. Cases.	Scarlet Fever. Deaths.	Whooping Cough. Cases.	Whooping Cough. Deaths.	Diphtheria. Cases.	Diphtheria. Deaths.	Typhoid Fever. Cases.	Typhoid Fever. Deaths.	Croup not Diphtheritic. Deaths.
1st	...	..	...	..	...	..	...	..	...	..	...
2nd	2	..	...	..	...	..	1	1	...	..	...
3rd	4	2	...	..	...	..	2	..	...		...
4th	6	..	...	..	...	..	1	1	...	..	...
5th	4	1	...	..	...	..	...	..	...	..	...
6th	5	1	1	..	...	..	...	..	...	..	...
7th	4	1	...	..	...	..	1	..	...	..	...
8th	1	..	...	..	...	..	1	..	...	..	...
9th	1	..	...	..	...	..	...	..	...	..	..
10th	3	..	...	..	...	..	...	1	...	..	...
11th	15	..	...	..	...	..	2	..	...	..	...
12th	5	..	...	..	1	..	1	..	...	..	...
13th	4	2	...	..	...	..	1	..	...	..	1
14th	4	..	...	..	...	..	...	..	...	..	...
15th	3	..	...	..	...	..	4	1	...	..	...
16th	1	..	1	..	...	..	1	..	...	..	...
17th	2	1	...	..	...	..	1	1	...	..	...
18th	8	2	...	..	...	..	...	..	...	..	...
19th	3	..	1	..	...	..	2	..	...	..	...
20th	2	..	...	..	...	..	...	1	...	..	...
21st	6	1	..	..	...	..	2	1	...	..	...
22nd	2	..	...	..	...	..	...	..	...	..	...
23rd	2	..	...	..	...	..	1	1	...	..	...
24th	1	..	...	..	...	..	...	..	...	..	...
25th	10	1	...	..	...	..	...	..	...	..	...
26th	1	..	...	..	...	..	...	..	...	..	...
27th	2	..	...	..	...	..	1	..	...	..	...
28th	3	..	...	..	...	..	1	..	...	..	...
29th	2	..	...	..	...	..	...	..	...	..	...
30th	4	1	...	..	4	..	2	..	...	1	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	..	...
Other public inst'ns	...	..	...	..	...	..	...	..	...	..	...
Marine H..	...	..	...	..	...	..	...	..	...	..	...
Totals	110	13	3	..	5	..	25	8	...	1	1
Last week	111	6	4	..	2	1	17	6	...	4	3

The following is the mortality report for the week ending June 29, 1889.

Croup	1
Cholera Morbus	2
Cholera Infantum	7
Cerebro-spinal Meningitis	4
Diarrhœa	1
Diphtheria	8
Entero-Colitis	3
Measles	13
Typhoid Fever	1
Other Zymotic Diseases	3—43
Cancer	4
Phthisis Pulmonalis	9
Other Constitutional Diseases	7—20
Apoplexy	1
Bronchitis	2
Convulsions	3
Heart Disease	4
Liver Disease	4
Peritonitis	1
Pneumonia	9
Other Local Diseases	33—57
Premature Birth	1
Other Developmental Diseases	7— 8
Accidental	8— 8

Deaths from all Causes	136
Annual death rate per 1000	21.76
Deaths for corresponding week in 1888	163
Deaths for corresponding week in 1887	122

Byron Stanton, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 44 observers (embracing 36 counties) show the following diseases to prevail for the week ending Friday noon, June 28, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Diarrhœa	26	54
Bronchitis, acute	16	32
Rheumatism (acute)	15	21
Tonsillitis	14	25
Intermittent Fever	12	22
Erysipelas	12	14
Remittent Fever	11	16
Cholera Morbus	10	16
Dysentery	8	11
Cholera Infantum	7	12
Pleurisy	7	7
Whooping Cough	5	39
Measles	5	11
Consumption (Pul.)	5	7
Diphtheria	4	7
Pneumonia	3	4
Scarlet Fever	3	3
Typho-Mal. Fever	2	8
Typhoid Fever	2	5
Puerperal Fever	1	1
Cerebro-Spin. Fever	1	1
Croup, membranous	1	1

Remarks.

Diphtheria reported by observers at Louisville, Garrettsville, Goshen, and Westboro. Reported by health officers: Toledo, 1 case; Xenia, 1 case; Weston, 2 cases; Middletown, 2 cases; Columbus, 4 cases; Cincinnati, 8 deaths.

Scarlet Fever reported by observers at New Bremen, Louisville, and Berkshire. Reported by health officers: Columbus, 6 cases, 1 death; Toledo, 3 cases; Hamilton, 1 case; Ironton, 1 case; Piqua, 5 cases; Flushing, 3 cases; Painesville, 2 cases; Weston, 4 cases; Delaware, 1 case.

Typhoid Fever reported by observers at Ansonia and Milton. Reported by health officers: Cincinnati, 1 death; Xenia, 2 cases; Versailles, 1 case; Piqua, 5 cases; Flushing, 4 cases.

Mumps, Whooping-cough and Chicken-pox epidemic at Mifflin.

C. O. Probst, M.D., Secretary.

Selected.

THE TREATMENT OF SYPHILIS: ITS FRAUDS AND ITS DISAPPOINTMENTS.

By Arthur Jackson, M.R.C.S., in *Med. Press and Circular.*

The question of the treatment of syphilis has now become, in my opinion, a matter of great medical interest, as well as of great national importance. Dr. H. G. Brooke says "that it is a strange and by no means consolatory fact that, in spite of all the laborious observations which have been made through so many decades, we are still in a position with regard to our scientific knowledge of the general treatment of syphilis, which is not greatly in advance of that occupied by our forefathers four hundred years ago." I do not for one moment imagine that I can throw any original light on the subject, but I do feel that a serious discussion of it should elicit some facts which are likely to be of service in rendering the treatment more successful in the future than it has been in the past. I should think every one will admit that he has had syphilitic patients who have carried out to the letter all the instructions given him; that the well-known abortive treatment has been pursued, not for six months only, but for years, and still the disease has made its appearance, not only in the patient himself, but also in his children. Every man whom I have treated for syphilis has never been allowed to marry on my opinion only. He has generally brought me a letter from some specialist in London; and if not, he has entered into the married state without my concurrence.

Still, after being pronounced cured, I had to regret the recurrence of the symptoms, not only in himself, but often in the children. So often has this occurred in my practice during the last twenty years, even when carrying out the treatment approved of by eminent specialists. So often have they and I been wrong in our verdict pronouncing a complete cure that I have for a long time asked myself, "Is syphilis curable at all?" "Ought a man ever to marry who has once had syphilis?" And on referring to great authors I find that their experience is much the same as mine.

Mr. Jonathan Hutchinson says: "It must, unfortunately, be admitted that in a certain number of cases, often apparently the most successful, the sequel will prove that delay only has been accomplished. After even a six months' treatment, and absolute prevention during the whole of that time, an outbreak may occur when it is suspended." I would remark, *en passant*, that outbreaks may, and often do occur, even when the abortive treatment is being continued, long after all perceptible evidence of the disease has disappeared. I have on my list patients who came to me at the commencement of the disease, who have been carrying on the abortive treatment in all its entirety for ten, fifteen, and nine years respectively, in whom we have no evidence of cure, who are from time to time subject to eruptions, and who, if they married, would, I believe, transmit to their offspring their terrible disease.

How often does a young man, declared cured by competent medical advice, continue the abortive treatment on the sly for a short time after he is married to become the father of a living child, syphilitic it is true, but alive? Afterwards he becomes careless, loses his nervousness about his ailment, and gives up the treatment, with the result that his wife miscarries time after time, until she or he adopt the abortive treatment again; and sometimes no amount of drugs will have the successful, and often much-wished-for result. Years ago I had a patient who miscarried twice soon after marriage. I told the husband, who was very anxious about the matter, what I thought was the cause. He said that he had never had anything but gonorrhœa, and that he had been soon cured. I gave his wife when she next conceived iodide of potassium and mercury. This she continued always when pregnant. We had no more miscarriages; but we had four well-marked syphilitic children, the ear, the eye, the teeth, and the nose all being affected. It will be interesting to observe, if life is spared me, what the children's children will be like, in what way they will show their syphilitic origin. The husband in this case never showed any signs of syphilis except when separated from his wife, just as people with a tendency to gout only show its symptoms at such times, Mr. Erichsen's opinion is not very helpful, as he says that after the commencement of the tertiary stage there is no fear of infecting the offspring. Wives and children may be infected twelve years after the disappearance of "evident signs" in the parents, while healthy children may be born two years after the contraction of the disease. In the last edition of Mr. Holmes' "Principles and Practice of Surgery," ably edited by Mr. Pick, we are told that the disease may be transmitted during the whole of the time that secondary symptoms are present, and in the intermediate period beyond; and to extend the treatment beyond two years does not tend to prevent the spread of the disease. Mr. Hutchinson further says that there is abundant negative evidence to support the belief that the virus ceases to exist in a form efficient for contagion long before the subject of the disease is free from relapses. Fournier believes in the spontaneous cure of some cases of syphilis. These great men, who have worked conscientiously and well in trying to unravel the mysteries of this disease, who have earned and enjoy our great admiration, confidence, and respect, are agreed upon one point only, and that is, relapses and transmission nearly always takes place during the primary, secondary, and intermediate stages. They none of them give us the slightest clue to the duration of the intermediate stage, which, so far as my experience teaches me, varies very considerably. I have seen a patient with secondary symptoms at the age of thirty; with tertiary symptoms breaking out at the age of over sixty. All his children were remarkably healthy. At what period did the intermediate stage cease?

These authorities differ in almost every other point. They are not agreed as to the time that abortive treatment should be pursued; nay, they differ as to the time when it should be commenced; they differ as to how soon after syphilization marriage may be contracted, and they are not agreed as to the curability of the disease. A medical man changes his views at different periods of his life. When I commenced practice I believed in the curability of the disease. Time has gone on. I have had more experience, have watched my patients pass from bachelordom to married life, have had miserable interviews with husbands, with wives; I have seen syphilitic children, have witnessed miscarriage after miscarriage, I have told lies to preserve peace in households, have been guilty of grave suppression of truth on death certificates, until at last I have been obliged to pause and think whether we are not guilty of want of courage, and whether we ought not to tell our patients that the abortive treatment of syphilis is but a fraud and a disappointment; that it does not cure the disease, but only protracts it, and brings on the individual worse results, both bodily and mentally, and keeps up the transmission of it to the children.

Would not the patient do better in the long run if he adopted the plan suggested by Shakespeare: "He hath abandoned his physician under whose practices he hath persecuted time with hope, and finds no other advantage in the process, but only the losing of hope by time.

Professor Neumann (Vienna) says after all clinical symptoms have disappeared, he nevertheless met with numerous exudation cells of a round and spindle-shaped form in the skin and the mucous membrane. These cells, which were very infectious in the recent stage of syphilis, augmented and proliferated very quickly. In the recent stage they could infect healthy individuals if these were deprived of the epidermis. As to the tertiary stage of syphilis, the exudation cells grew and augmented much more slowly, were less infectious, irritated the neighboring tissue to inflammation to a less degree, and did not spread on other localities when proliferating and augmenting.

In a later stage they inclined towards the formation of connective tissue and hypertrophy, and at last underwent caseous, and destructive process. Hence these exudations were always present in the skin and the mucous membrane during the latent stage of syphilis, and continually formed a source of danger for the health of the individual.

After some experience, but in all humility, and with a mind open to conviction, and anxious to change its present unsatisfactory ideas, I have become an unicist, believing in one, not in two poisons, in its zymotic nature; in the existence of a syphilitic microbe, the augmentation and proliferation of which is arrested but not permanently stopped by the exhibition of mercury. I am inclined to think that experience teaches us that to arrest the disease by the abortive treatment leads to some of the worst cases of syphilis, both in the individual and in his progeny; that there is negative evidence to prove that in the unrecognized cases, which are not treated, the progeny often escapes, and that when treatment, so-called specific, is not adopted till the second stage, or to the later part of the second stage, both patient and progeny are better off.

Who would think of urging the abortive treatment of scarlet fever after Professor Neumann's statement? None, unless it be Dr. Illingworth, and I venture to think that the time has come for us to put our heads together, to collect our facts, and then to overhaul thoroughly the results of the abortive treatment which all adopt, and I, as much as anyone else, and see if we cannot take up some more rational and successful treatment, which shall be at once a joy, and not a deception for our patients; a success, and not a disappointment to ourselves. It is a duty we owe to our profession, it is still more a duty we owe to the generation to come after us, in whom the glory and honor of this great country will be maintained or lost.

BICHLORIDE OF MERCURY IN ANÆMIA.—Cartledge claims that mercury in small quantities, by its stimulating effect upon the glandular system, and its power to cause lymph absorption, is indicated in nine out of every ten cases of anæmia. He finds the most convenient form of administering, and the one productive of the best results, to be the bichloride in doses as small as the one sixty-fourth of a grain well diluted and given on a full stomach. A most excellent combination is that of the proto-chloride of mercury, chloride of arsenic, and chloride of iron. This is particularly applicable in the treatment of the anæmia of females. The greatest virtue of the drug is that it relieves those often obscure and chronic obstructions to gland action which exert so potent an influence for evil on the economy.—*American Practitioner and News.*

CHILBLAINS.—Dr. R. Nicholson gives the following formula for chilblains, and claims that he has never been disappointed in its use. Spirit camph.; tinct. opii, aa ʒii; acid carbol., gr. xl; spirit vini, ʒiv; aquæ, ʒiv, A. M.

THERAPEUTICS.

PLANTS AND THEIR ALKALOIDS.

In an important paper recently read at the Academy of Medicine by that distinguished professor, Dr. Germain Sée, he very correctly stated that in therapeutics, alkaloids and the plants from which they are derived should not be confounded. These opportune remarks were made in regard to strophanthus and strophanthine, but he pointed out that they might be equally well applied to a number of alkaloids and plants used daily in our practice. In fact, we well know the essentially different nature of the effects of digitalis and digitaline, of opium and morphine, of cinchona and quinine, and of the many plants from which alkaloids are derived.

Coca is indisputably that drug to which, above all others, these remarks can be applied.

Erythroxylon coca possesses, without doubt, analgesic properties, and is held as a superior local sedative, especially where pain exists in the region of the mouth and the throat (as noted and published by Professor Charles Fauvel, long before the discovery of the local effects of cocaine), and in calling attention to the virtues of this plant, it may be stated that the beneficial effects of wine of coca have been thoroughly established in tuberculous and other ulcerations existing on the tongue, the mouth, the lips, and on the vocal cords; in all this class of cases such a preparation is of great value, prolonging, as it does, the anæsthetic and sedative effects of cocaine when applied topically or when such application becomes, for one reason or another, impracticable, proving itself of great service to the physician by reason of its local action.

Coca differing essentially from cocaine, the action of the plant upon the general economy, and not its local action, should be borne in mind.

Coca is a most active stimulant tonic, especially when used in vinous combination. No better preparation can be employed than the "Vin Mariani," which contains all the valuable properties of the plant, combined with a generous and absolutely pure wine. This has been found to give the best results.

There are numerous conditions in which this preparation is indicated; in a general way, it is serviceable in all those various diseases which come under the clinical head of anæmia (weak heart, chlorosis, various forms of cachectic conditions, neurasthenia, general debility, and in convalescence from fevers.

Tuberculosis, presenting essentially anæmic features, it can be readily understood that here the happiest results may be obtained by the use of the above preparation of coca, as also in the other forms of phthisis.

Although coca is not a specific in phthisis, and without wishing to claim that it is a destroyer of the bacillus of Koch, it nevertheless here proves its efficacy, and, as quite recently stated in that important work, "La Phthise pulmonaire et Laryngée," by Dr. H. Libermann, Physician-in-Chief to the Army of France, "The bacillus alone is not the sole factor to be considered in phthisis."

All these data are of absolute importance, and at the same time the physician should have at his command some agent which in all cases will, by its reliable action as a diffusible tonic and stimulant, fill the following indication during treatment, namely, "*The maintenance of perfect nutrition and the guarding against debility in its various forms.*"

The only tonic in every respect filling these indications, and which it has been found may be given for an indefinite period without any unpleasant reaction in wasting diseases, is wine of coca. The preparation known as *Vin Mariani* (prepared by Mr. Angelo Mariani, of Paris), which has been employed by the medical profession since the last thirty years, is the only one which has given me uniformly good results without the unfavorable features which frequently follow in the wake of tonics and stimulants.

Thus will be seen the necessity of recognizing the merits of this plant independently of its alkaloid, and the wide field it should occupy in our therapeutics. —Dr. S. A. Nitard, *Le Bulletin Médical*, Paris, 8 Mai, 1889.

Laparotomy in Visceral Wounds. —In an article on laparotomy in visceral gunshot and stab wounds (*Nashville Journal of Medicine and Surgery*, May, 1889), Dr. C. S. Briggs presents the following general conclusions:

1. That laparotomy for traumatism should be resorted to in the majority of cases in which the existence of visceral injury is clearly established, the exceptions being such instances as, from the great extent or necessarily fatal character of the wound, the possibility of recovery is absolutely precluded.

2. That where doubt exists as to the presence of gastro-intestinal lesions, Senn's insufflation method should be employed.

3. That the median incision is best adapted for laparotomy in these cases, except in penetrating wounds received from behind or where it is evident that one of the immovable viscera has been injured at such a point as to render the necessary examination impossible through the opening provided by the median incision.

4. That inspection of the abdominal contents should be thorough and painstaking, even at the risk of added shock by prolonged search, though expedition in this, as well as in other parts of the procedure, is certainly to be recommended.

5. That while it is unquestionably necessary for speedy repair in the approximation of visceral wounds to unite serosa to serosa, multiplied stitching is to be avoided, inasmuch as the nature of the reparative process in this class of wounds does not require such intimate closure, the advantage to be obtained thereby is more than counterbalanced by the loss of time, and a great number of stitches in itself constitutes an element of danger.

6. That the continuous suture is the best adapted for nearly all intestinal wounds, as it is the simplest, the most quickly made, and can be used in such a manner as to possess all the advantages of the Lembert suture.

7. That when wounds with great loss of substance or closely placed multiple wounds are met with, Senn's approximation method by intestinal anastomosis may, when better understood, be substituted for resection, now considered necessary in such complications.

8. That the peritoneal toilet should be carefully made, and that the penetrating wound of the abdominal wall should be closed with as scrupulous regard for the care of the peritoneal injury at that point as at the wound in the median line.

Professor Virchow is reported to be engaged in rewriting his great work on Cellular Pathology.

NÆVUS AND THE BEST METHODS OF CURING IT.

By Wm. S. Gottheil, M.D., in the *International Journal of Surgery.*

A nævus is a hypertrophy, congenital or acquired, of one or several of the structures that form the skin. These we meet with:

I. *Nævus pigmentosus*, the flat mole or mother's marks, in which the abnormality consists of an excessive deposit of *pigment* in a circumscribed area of skin. They form sharply limited, slightly elevated spots, varying in color from a light yellowish-brown to a dark chocolate-black. Rarely single, they may be present in large numbers. Their size varies greatly, but, once formed, they do not tend to increase.

II. *Nævus pilosus*, the hairy mole, being a localized and sharply limited excessive growth of hair on any part of the body. This hair may be of the small short "lanugo" variety, but it is more likely to be of abnormal stiffness and size. These moles are more commonly single or few in number, and are of larger size than are the pigmentary nævi.

III. *Nævus spilus*, in which the connective tissue of the skin is hypertrophied, so that smooth, firm, moderately elevated and sharply limited tumors are formed. They are usually congenital and few in number. N. verrucosus is simply one of this variety, in which there is a still greater development of connective tissue, so that the tumor presents a warty appearance.

IV. *Nævus vasculosus*, being an overgrowth or hypertrophy of the blood-vessels of a localized area of skin. In accordance with the predominantly arterial, venous, or capillary character of the new vessel, we have N. arteriosus, N. venosus, and telangiectasis. These hypertrophies form the familiar port-wine stains and strawberry marks. Their color varies from a faint pink to a dark purple. They form non-elevated, discolored patches of varying size and shape. Usually congenital, they are often single, and may cover many square inches of surface.

V. *Nævus unius lateris*, a rare form, which merits a separate place from the fact that it occurs over large surfaces in the area of distribution of a nerve. All the tissues of the skin may be involved in varying degree in different cases. The malady is usually so extensive, covering the whole of an extremity, etc., that its treatment does not come within the scope of this article.

The above classification is useful, inasmuch as it enables us to classify our ideas concerning a large class of dermal neoplasms; but, like many other classifications, there are reservations to be made in its practical application. For whilst some nævi are pure forms, and can be ranged under one or other of the above five heads, many of them are combinations of two or more types. The ordinary pigmentary mole is often found in typical form, as also is the vascular nævus, especially in its capillary or telangiectatic form. Pure nævus pilosus and nævus spilus, on the other hand, are comparatively rare. Most arterial and venous nævi occur conjointly with a varying amount of connective tissue hypertrophy; and the hair mole generally shows connective tissue and vascular overgrowth. As a rule, the structure most largely represented in the neoplasm gives its name to the growth.

There is but little to be said concerning the cause of nævi. We are justified, I think, in rejecting the stories that refer them to antenatal maternal impressions. Apparently well authenticated as many of these stories are, they are at variance with what we know of embryological development, and lack that scientific explanatory basis which is almost absolutely necessary for their credence. The class of evidence cited in their behalf is precisely similar to that which has been adduced in favor of spiritualism and of witchcraft.

But although our knowledge of the cause of nævi is so defective, such is not the case in regard to their treatment. And this, to the practicing physician, is the important point. For these nævi are disfiguring in the first place. I do not understand how any sensible man or woman regard them with complacency as "beauty spots." When they occur upon the face or hands it is always desirable to remove them. Upon other parts of the body they are not of so much importance.

There is a reason beyond a mere cosmetic one, however, for treatment. It is a well established fact that such dermal growths often form the basis of epithelioma and pigmentary sarcoma in the later years of life. The initial history of almost every

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epithelioma of the face is that a small nævus or wart had existed for years at the spot, and that, from the irritation of the finger-nails or of improper attempts to remove it, it began to grow and to take on malignant characters.

Various methods of treatment may be employed for the removal of these growths. All of them are amenable to treatment, even the largest port-wine stains.

I. *Treatment of Pigmentary Nævus.* — The simplest method of removing these deformities is to apply a *one per cent. solution of corrosive chloride of mercury in alcohol and water* to the spot. A piece of linen is fitted to the surface to be treated, and is kept *in situ*, well wetted with the solution, for four or five consecutive hours. A moderate feeling of burning is felt and the epidermis is raised into a blister. This is punctured at its lower border and an ordinary dusting powder of starch or talcum applied. It takes a number of days for the epidermic crust to fall off, but where it does it leaves the skin white and colorless.

Green soap, spread upon flannel, and kept continuously applied for twenty-four hours, causes a complete desquamation of the epidermis, with the disappearance of superficial pigmentations.

The *ethylate of sodium* is a caustic that has given good results in these affections. It should be made fresh by adding metallic sodium to absolute alcohol. If ordinary and not absolute alcohol is employed, ordinary caustic soda is produced instead of the nascent sodium, and the effect of the remedy is lessened. The solution is applied to the spot with a glass rod, and the part is then allowed to remain undressed, since the contact of any substance containing water is liable to cause an excessive amount of suppuration. After the crust has loosened, a dusting powder as above may be applied. The pain is not severe.

Curetting may be tried if other means fail. The entire pigmented area can be removed rapidly and effecually with a stout sharp dermal curette. These can now be obtained of the instrument-makers in various sizes. A small and very superficial scar will be left.

Excision. is the last resort. A clean oval cut around the spot, done antiseptically, with one or two catgut or silk-worm gut sutures, the wound then covered with a small mass of five per cent. iodoform absorbent cotton, and flexible collodion painted over the mass so as to form an impervious and permanent dressing, will leave little, if anything, of a scar. Certainly, on exposed parts of the body, such a mark is preferable to a disfiguring nævus.

II. *Treatment of Hairy Nævi.* — Curetting and excision, as detailed above, may be employed here, but the best method is that of

Electrolysis. It causes the least possible amount of scarring. It is safe and is very successful. The method of its use and the necessary instruments have been fully described in the February and March numbers of this journal for the current year, to which the reader is referred. Here, of course, a deeper and farther reaching electrolytic action is required. All the hairs, lanugo and ordinary, should be first destroyed. If, after they have been permanently removed, a certain amount of vascular or connective tissue hypertrophy or both is left over, the needle should be plunged obliquely into the base of the growth from a number of points on its periphery, and as strong a current as the patient can bear applied. In the vicinity of each needle-track will be an area of occluded vessels and destroyed tissue. If a sufficient number of such areas are created, the vascular supply of the tumor will be cut off, and it will slough. In the course of a few days it becomes black, dries up, and drops off. In small nævi—in those not larger than a large pea—absolutely no trace of the growth or of scar tissue will be left, if the operation is skillfully performed. In any ordinary case the resulting disfigurement will be entirely unnoticeable. I have repeatedly removed such growths from the forehead, cheeks, and chin, where not even the aid of a magnifying-glass would enable the observer to find the site of the tumor. A slight modification in the form of the needle is advisable when the growth is of any size. The instrument-makers supply one about as stout as a darning-needle, with a small lance-shaped point, and covered with an insulating material to within half an inch of its tip.

III. *Treatment of Connective Tissue Nævi.* — Repeated paintings of the part with pure nitric or caustic potash (ʒi-iv to ʒ i) does well in this form of growth. Each application causes a superficial slough; when that is thrown off, the application may be repeated. In large growths, of course, a portion only should be cauterized at a time. For small nævi a tartar emetic ointment (gr. ix to emplat. adhes. ʒi) does well and is not painful. Pustulation and suppuration occur, the growth is destroyed, and a thin, soft scar is left. It cannot, of course, be used upon the face, but may be employed upon the scalp and other portions of the body.

The galvano-cautery can be employed if other means fail. The platinum knife or strip, heated white-hot, is to be either superficially applied or sunk deep into the mass, in accordance with its prominence and density. A poultice or emollient ointment may be applied subsequently to facilitate removal of the mass.

Finally, a circular incision just through the skin may be made around the base of the mass, and an elastic ligature applied, such as is used for hemorrhoids. This, of course, can only be done when the growth has something of a neck around which the ligature can be passed.

IV. *Treatment of Vascular Nævi.* — These are amongst the commonest of these growths, and are the variety that most frequently need our attention. Most nævi of the other varieties have a varying amount of hypertrophic vascular tissue in their structure, and will fall largely under this head in respect to their proper treatment. Various methods, all more or less appropriate to certain cases, may be employed; but an accurate differentiation and a careful selection of the best method is necessary to insure a cure.

Small vascular nævi, flat or raised, arterial, venous, or capillary, pin-head to small pea size, can be most readily destroyed with a red-hot needle. Painting the surface with a four per cent. solution of cocaine and injecting a drop or two of a two per cent. solution of the same drug into the base of the tumor robs the little operation of all pain. The needle must be thoroughly moved around in all directions, so as to completely destroy the growth. A needle or a solid glass point dipped in pure nitric or chromic acid will accomplish the same purpose.

Small-sized, flat capillary nævi may be simply painted over with pure nitric acid. Sodium ethylate, as described under No. I, may be used, a little of an alcoholic solution of opium being added to lessen the moderate pain caused by the application. Caustic potash (ʒ i-iv to ℥ i) may also be employed.

Larger telangiectasis need more energetic treatment. Here the method of lineal scarification, introduced by Squire, is valuable. An ordinary round-bladed knife, or one of the scarifiers figured in the November (of last year) number of this journal may be used. When any considerable amount of scarification is to be done, these latter will be found to be much the more convenient. The part to be operated on is frozen with the ether spray or anæsthetized by painting a four cent. solution of cocaine over it. Cross-hatching, as the artists term it, is then done. A series of parallel cuts about one-sixteenth of an inch apart is made over the whole, or part of the surface affected. These cuts should go just deep enough to divide the hypertrophic vessels. Another set of similar cuts at right angles to the first set is made over the same surface, forming the cross-hatching. Pressure with pledgets of cotton is then made to stop the hemorrhage. The tortuous and enlarged vessels are divided in every direction, the circulation is cut off, and they are destroyed. Squire's scarificator, which consists of series of sharp hooks, so set in a handle that they can only pass a certain distance into the skin, may be employed. A description and drawing of the instrument will be found in the article above mentioned. In larger telangiectasis, a certain portion can be gone over on alternate days or twice a week. In spite of certain adverse criticisms, this method has proved in my hands one of the most successful modes of treating this affection.

Punctate scarification has been introduced by Sherwell, who employs a number of needles arranged in a bundle for the purpose. By means of a spring, they may be made to penetrate the tissues simultaneously. Pure carbolic acid, or a twenty-five per cent. solution of chronic acid may be used on the points. Pressure is employed to stop the bleeding; the part is washed off with alcohol, and several coats of a thick collodion solution are applied.

Vaccination has been quite extensively employed, and with good results. Quite large erectile and sessile nævi have been cured in this manner, as well as more or less extensive telangiectasis. The operation may be performed at the circumference or upon the surface of the tumor, the points of insertion being about half an inch apart, and an abundance of vaccine matter being used. A lancet is apt to cause too much hemorrhage, so that the stream of blood washes away the vaccine matter. A stout needle is preferrable as a scarificator. (The New York Board of Health recommends an ordinary needle for vaccination in general, since they are everywhere obtainable, and a new one may be used for each patient.)

Electrolysis is as much in place here as it is in the case of the hairy nævi. The needle is passed into the growth in various directions, and the vessels are destroyed. It is possible to cause death and sloughing of comparatively extensive growths in this manner. It possesses many advantages in the treatment of all ordinary nævi. It is safe; there is little hemorrhage or pain, and scarring is absent or reduced to a minimum. The method is exactly similar to that employed for the destruction of superfluous hair.

Injections into the tumors are only to be used in exceptional cases. Formerly they enjoyed a considerable reputation in the treatment of nævi, but the accidents that occurred when they were used were so serious and frequent that they have been largely abandoned. The idea was to cause coagulation of the blood, and so effect occlusion of the vessels of the tumor. The tissue of the tumor is to be torn up with a needle, and about ʒss. of a solution of chloride of zinc (gr. x-xii to ℥i) or tannin (ʒi–℥i), or tr. ferri chlor., is to be injected into the centre of the tumor. Not only does severe inflammation, sloughing of the tumor, and consequent deformity often ensue, but more serious troubles, gangrene, pyæmia, and embolism, may occur. Bryant lost a patient from embolism a few minutes after injecting a nævus of the cheek. The application of a ligature to the base of the growth before operating will tend to prevent the occurrence of such an accident. The method is only to be employed when others fail.

Ligature and excision, one or both, is again to be recommended where the nævus is pendulous or there is much connective-tissue hypertrophy. It is usually not necessary to ligate the whole growth if it is extensive; if a part only be securely tied off, the inflammatory action usually spreads to the rest of the tumor, and the whole sloughs off. A pin should be passed through the base of the growth, to afford a base for the application of pressure in case of excessive hemorrhage; a needle armed with a double ligature is then passed through the tumor at right angles to the pin, and the growth is ligated wholly or in part. The tied part should be punctured to secure more perfect occlusion.

Finally, in some cases excision with the valvano-cautery gives the best results. The knife must be white hot, so that it preserves its heat in the deeper tissues.

Such are the remedies most useful in the treatment of the various kinds of nævus. In a general way, the milder should always be tried before the severe and more radical measures. And, if the new growth is of any size, the general rule holds good that only a small portion of it is to be operated upon at one time.

THE PROPHYLAXIS OF DIPHTHERIA.—Dr. L. Bard concludes an exhaustive article on this subject, which was continued through six numbers of the *Lyon Médical*, ending March 24, 1889, with the following summary:

The most reasonable and adaptable measures to insure the prophylaxis of diphtheria are as follows:

1. Prolonged isolation of the patients in special wards or buildings.

2. Total isolation of the sick, and also isolation—as far as possible—of those in attendance upon them.

3. Watchful care over those who might possibly be sickening with the disease, *i.e.*, the brothers or sisters of the patient, and others who have been thrown in contact with them.

4. Special inspection of schools, in order, as far as possible, to insure the removal of all convalescents and those with suspicious symptoms.

5. The immediate disinfection of the patient and all articles soiled by him.

6. The observation of rigid cleanliness and strict antiseptic precautions by all attendants of the patient, in order to prevent the spread of the germs through them.

7. Thorough disinfection of all utensils used by the patient, as well as of the room, etc.—*Med. News.*

SANDER & SONS' Eucalypti Extract (Eucalyptol). Apply to DR. SANDER, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Griefswald.

Translations.

THE EVIL THAT HAS BEEN SAID OF DOCTORS.

EXTRACTS FROM EARLY GREEK AND LATIN AUTHORS

Collated from "Le Mal qu'on a dit des Medecins," of DR. S. J. WITKOSKI.

Translated with annotations by
T. C. MINOR, M.D.

MODERN FRENCH AUTHORS.
(Continued.)

PIERRE DE VILLIERS (1648 to 1728).

When a doctor visits his patients on foot,
He suffers from dozens of insults and ills:
He hears of rich patients he thinks he could cure,
Who are slain by the chariot doctor who kills.

But when he grows rich and rideth along,
With two horses pulling his elegant chaise,
'Tis then that he changes the tune of his song,
And thinks one's surroundings alter the case.

So he prudently counsels each patient that comes,
Finding science is best in an elegant drag,
Contented to kill in a carriage he roams,
And, smilingly, whippeth each mettlesome nag.

* * *

ANONYMOUS (1649).

UNIVERSAL RAILLERY.

(Extract.)

Si les Cesars en une ligne,
Signoient la fin de nostre sort,
Que fait un Medecin qui signe
Un ordinance de la mort?
Si l'objet de l'Anatomiste
Est de mesme que d'un boucher,
C'est que tout leur employ consiste
A ne rien faire que hacher.
Si Dieu guerit la maladie
Comme le souverain agent,
Ou voit une main hardie
Au Medecin qui prend l'argent.

* * *

PALAPRAT JEAN (1650 to 1721).

HARLEQUIN PHÆTON.—COMEDY IN THREE ACTS.

ACT III. *Scene* 3.

Æsculapius: Believe me, you are well! Do you think you have only been asleep, my brother? Know that you were dead, and I resuscitated you with my medicines.

Phæton: For one you resuscitate scores of others must die.

Scene 9.

Doris: We have been greatly embarrassed as to a choice of trades. Had Æsculapius taught Phæton medicine he might have gained his living; besides that, Phæton would have been learned, too.

Momus: Many an ignorant fellow is enriched by this medical trade.

Æsculapius: The trade was a meritorious one in former ages, but to-day it is much decried. Even children knew then that *oxicrat* was only a mixture of vinegar and water; now all the world deals in a multitude of special drugs.

Momus: Added to this, your modern doctor delights in fraud. Some persons will kill off an army without the assistance of the physician; another will kill himself with excesses in four and twenty hours; but in extraordinary ills, taking charlatan for charlatan, give me the pure empiric.

Phæton: In ordinary maladies,—the common, every-day afflictions of life,—we knew as much as you formerly, and all the world applied most simple remedies; so that the first furniture of a well-equipped mansion was an easy-working syringe.

Momus: But now there exists a true alliance with the Medical Faculty. When fever comes they seize upon the patient while a drop of humor or red blood flows within his veins; they take great pains prescribing their vaunted quinia, which is duly adulterated beforehand by the apothecaries; the mortal effect of this cursed febrifuge is noted, inasmuch as pharmacy has sophisticated on the virtue of the drug.

Phæton: You are right. But I do not enrich myself in that manner, as *I only treat secret diseases.* I advertise on my cards that I only see men, but Madam Phæton, my wife, will examine all the ladies.

Momus: For shame! Yours is a vile bawdy trade, although it is true it offsets the tricks of the rascally apothecary.

A GIRL OF GOOD SENSE.—COMEDY IN THREE ACTS.

ACT I. *Scene* 2.

Pierrot: Now, Master, you always promised me your doctor's robe when you married, and you will enter wedlock to-morrow with the pretty Angelica. Then I shall throw aside my working-jacket and be a doctor like you are.

The Doctor: Barone, ti credi d'esser

Dottore per averne il vestito? (Fool! Do you think to be a doctor by *wearing one's clothes?*)

Pierrot: Why not? There are a thousand doctors to-day who enter the profession with no more ceremony or preparation; I know fifty here in Paris to-day—they are only physicians in equipage and clothing. I see asses who are doctors all the time, *in utroque et in medecina si voluissent* (one and the other in medicine as they will).

* * *

BARATON (1650 to 1720).

Ou portoit a' l'Eglise un mort de qualite,
Qui dans sa maladie avoit ete traite
Comme le sont les Grands, avec mainte beveue,
Deux Medecins amis, et de la Faculte,
S'etant recontrez dans la rue,
L'un d'eux goguenard et boufon,
Dit en riant a son confrere;
Cet homme que l'on port en terre
N'est—il pas mort de ta facon?

THE DOUBLE DROPSY.

An old fellow with dropsical effusion
Fell ill and was ready to die.
All his doctors came to the conclusion
He was soon to yield his last sigh.
'Twas then that he made the decision,
To go down to Lyons to dwell,
As he'd heard that there dwelt a physician
Who would kill when he could not make well.
So he hitched up his family carriage
And sought for this doctor post-haste,
With his pretty young wife, whom marriage
Had never made full in the waist.
Now the doctor was handsome and jolly;
The old man's wife cooed like a dove;
Before she was sad—melancholy,
But now she o'erflowed with her love.
For in nine months her husband was cured,
And his dropsy was perfectly well;
While the young wife her nausea endured
For with something her belly did swell.
Ah! can one a skillful young doctor blame,
When he transmits a swelling from husband to dame?

* * *

CINTHIO (Old Italian dramatist).

THE REMEDY FOR ALL ILLS.—COMEDY IN THREE ACTS.

(Harlequin, disguised as a doctor, mounted on an ass, and is accompanied by Trivelin; they lead another animal carrying a standard.)

Harlequin: I am a doctor, a surgeon, apothecary and barber; I am perfectly acquainted with all infirmities and every malady. I have cured with my *pèrlin-pin-pin-powder* a case of sea sickness(1) in eight days in a young man aged fifteen years. [*Here Trivelin innterrupts Harlequin, and the doctor admits that only girls and old women have this affection.*] "You are deceived," responds Harlequin, "for the mother of this young man has hit him a violent blow on the head with a stick. I believe I can call that *mal de mere* (sea-sickness). In the same skillful manner I cured a fellow who had *headache in his stomach.*" "How can that be?" says the doctor. "Why, he was hooked in the belly with a bull's horn," replied the mock physician. "I have cured *toothache in the hand,*" says Harlequin (*all the audience laughs*). "Yes, gentlemen, I will convince you of this, for a dog bit one of my patients in the left hand. Gentlemen, believe me, this wonderful powder of mine comforts the stomach, establishes natural heat, aids the spleen and liver, and makes the lungs breathe. This powder is a remedy for all nations, especially as it is French. Ah! gentlemen, I am a hard student, I observe the revolution of the planets, because, as Plato has observed, 'a doctor without astrology is an eye without a pupil.' You will observe that I cure all diseases except those under the sign of Taurus or Capricornus, which are incurable, because they attack the head." Here Harlequin ceases to speak and they bring in some pretended paralytics; he gives them his powder, which is a variety of snuff, whereat they all sneeze violently and dance around the stage.

In the second act, several patients present themselves to the pretended doctor. "My daughter has lost her health!" cries one of those present. "Well, I've not found it yet!" retorts the ever-ready Harlequin. He orders a person to heal an incurable affection of the feet by cutting off his head, on the theory of *contrariis contraria curantur.* Even Scaramouche, and says to him, "I desire to show you the virtue of my powder." He places Scaramouche, who pretends to be helplessly crippled, on a bed of straw, and, after sprinkling him with his powder, sets the bed on fire, whereat that malingering party, scorched by the fire, takes to flight,

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1 A play on French words is noted here in the original. *Mal de mer* means sea-sickness, while *mere* means mother; an illness caused by a mother is here rendered as *mal de mere.* The pun is obvious to all readers of French.

pursued by the laughter of the appreciative audience.

* * *

MARCOUREAU DE BRECOURT

(Died in 1685).

THE GHOST OF MOLIERE.—COMEDY IN ONE ACT.

Scene 1.

Second Ghost: During the four years I have served this famous empiric, he has never given me the least information as to the poisons he composed. How many lives has he sold by this means to the highest bidder?

First Ghost: The secret of killing men is certainly connected with medicine, or we should not be seduced into this discourse. Yet it is a difficult matter to speak of doctors and not avoid the subject of death. It is a well-known fact that these gentlemen are a little vindictive, and that for some time past they have been preaching the vengeance of those who did not wish to die at their hands; and it happens that our grand master, Pluto, gives these people position here and vents his wrath on us for not speaking of the Faculty with due respect. Perhaps it were better to hold our tongues.

Second Ghost: The festival is arranged for these people and is to be prepared here.

First Ghost; I know not whether it be for doctors or others; but I do know that Pluto will soon be here tc manage the affair.

Scene 3.

Minos: In other times it was the ambition of a certain man to write what he desired to say, but this was a difficult task when nothing appeared to be perfect. There is not up to medicine even anything that has not been censured at his hands, and this is what he most often touched upon; and so well did he succeed on this subject that he still is feared, for they dread that they may be banished from earth for another six hundred years.

Pluto (*seated on his throne*): That would do me a great injury.

Scene 13.

Moliere: Ah! here are my friends, the doctors. Let us listen, and we will answer afterwards.

Pluto; Gentlemen, doctors, you are welcome. You visit a prince who honors you so much. I know full well all the obligations I owe your profession, and in this vast Empire of the Dead you can well boast of playing a good part in my interests. So, in return, I can refuse you no favor you demand of me. Ask and ye shall receive!

First Physician: Grand Master of the Dead, you see before you the very flower of medical chivalry—your ever faithful servitors.

Second Physician: We have never let the occasion slip to give you full evidence of the marks of our esteem and fidelity.

Pluto: I know that full well, for your opium, emetics, and bleedings render ample testimony that you truly and loyally served me.

Third Physician: We deemed it our simple duty.

Pluto: The many that come to me fully attest that fact.

Fourth Physician: It is only a pleasure to serve so great a Monarch.

Pluto: I am ever under obligations to you all, and it gives me joy to greet you. I know too that your aid is still necessary in the world above, and that I am somewhat vexed that age has called you here I will admit. Nevertheless, I am consoled by the thought that you have left children on the earth who know how to practice your trade, and have already sent me an installment of their clients with whom they experimented. But what do you desire of me?

Third Physician: We come to demand justice of a mortal who pretended that the art of medicine was an imposture and gross charlatanism.

Pluto: Is it someone I know?

Fourth Physician: He was one who raged without a foundation of truth for his assertions; a fellow who satirized all our profession. A man whose animosity was envenomed solely by envy, and who organized a conspiracy against medical practitioners.

Moliere [*aside*]: I will confound these superb pretenders!

Third Physician: He is already predicting bad things of us here. Even the Dead seem now leagued against us; he still emits his calumny against us, and is full as ever of biting sarcasms against our doctors. So, Grand Monarch, we come to you humbly as a committee from our illustrious Medical Faculty, to show that the increase of your Empire depends on repressing the audacity and insolence of even the Dead, whom he inspires.

Pluto: I shall teach these dead how to live. I fully understand, and shall tell them you are the firmest supporters of my State. But who are these dead who impudently dare to discredit your trade? Name, only name them to me, and I shall make a horrid example of them!

Fourth Physician: There are a number of lesser spirits who swell the general torrent of abuse, and who echo the complaints of another who has lied. It is the author of our injuries whom we desire to punish. It is this latter-day Cato, who inveighs against us, and who, in his scorn of our noble profession, has pushed his audacity to the point of sublime ridicule, rendering us a veritable laughing stock to the public. It is the ghost of this man, this impertinent slanderer of the Medical Faculty, on whom we invoke your direst vengeance.

Pluto [to Moliere]: Answer to this charge!

Moliere [to the Doctors]: So you wish me, gentlemen? You demand vengeance for the contempt I bear your illustrious Faculty? I admit that I have made you all the laughing stock of the public. As it is necessary to answer you, I shall make your characteristics more accursed than ever. Pluto, Monarch of Hell, I swear here, by the respect I owe you, Great Master, that it is not against medicine that I have so bitterly inveighed. I have adored the study of the Healing Art, I revere its judicious practice; but I abhor and detest the pernicious and wicked use that is made of it by senseless fools whom only a diploma makes doctors; it is only against those who abuse the name of physician that I deign to respond.

Pluto: You argue sensibly enough.

Moliere [to the Doctors]: Imposters! You perpetually prove your ignorance and the uncertainty of your practice by continual disagreements. Never in your simplest prescriptions has the world ever seen you follow each others prescriptions without adding or subtracting something. As to your opinions, they are more varied than your practice. Some say the cause of disease lies in the humors; others in the blood. Some with pompous assaninity impute all maladies to invisible atoms that enter the pores of the body. Some contend that all affections arise from a deficiency of force; some that they proceed from an inequality in the elements of the organization and the character of the air we respire, or the abundance, poverty, or corruption of our food. This diversity of opinion fully evidences the ignorance of doctors; but the weakness and rashness of the sick who abandon themselves to contrary gales is more stupid.

Pluto [to Doctors]: Gentlemen, do you hear this?

Moliere: The only thing seeming half unanimous in their schools is their ideas on the composition of a medicine. They say one thing purges the brain, another warms the stomach, another refreshes the liver,—as if in such mixtures each remedy carried its own point of etiquette, and that all were not absorbed by the system at the same time. It is well that these gentlemen are satisfied with the efficacy of their drugs, for if one of the remedies happens to be in the road of another, a part of the anatomy to be warmed might be cooled—and what becomes of the patient?

Pluto [to Doctors]: Gentlemen, listen to this argument!

Moliere: But these fraudulent imposters abuse the occasion; they tyranically usurp all family authority when dealing with the sick overcome with disease and dreading Death. They take every advantage of mankind's weakness and superstition, and in this dangerous moment they brazenly experiment with our lives with any remedy that may suggest itself to their ambitious imagination. These scoundrels try anything, and, in this confidence, the sun shines on their successes and the earth hides all failures.

Pluto [to the Doctors]: Gentlemen, listen to his remarks!

Moliere: I remember at this point, with some grief, the weakness of one of my friends, who stupidly confided in their seductive promises and poorer treatment. Two hours after he was attacked, the physician whom he had called came to ask what effects his remedies had secured. "I sweat!" exclaimed the sufferer. Three hours after he came to demand how his patient felt. "I have a chill and quake," said the invalid. "That is well!" exclaimed the doctor. In the evening, when the physician returned for the fourth time and made inquiry, he was informed that his patient was swollen up with dropsy; he answered, "It is well!" The next day, calling on the patient, he asked "How fares he to-day?" and the reply was, "My dear friend, he is dead." "Ah!" cried I, overcome with grief, "how happy are animals, where simple Nature can cure without the aid of medical consultations!

Pluto: Gentlemen, what think you of this?

[TO BE CONTINUED.]

TREATMENT OF DIARRHŒA IN PHTHISIS.—Dr. Polyák, of Görbersdorf, gives, in the *Orvosi Hertilap*, the results of some trials he has made of two recently suggested remedies in the diarrhœa of phthisis, viz., silicate of magnesia in the form of talc, which has been recommended by Debore, and lactic acid, recommended by Drs. Sézary and Aune. About eight ounces of talc were well shaken up in a pint of milk, and this or even a larger quantity was given daily. As a rule, it arrested the diarrhœa after having been used for a couple of days, but if it was left off the diarrhœa returned. It was found, however, that patients liked the milk mixed with talc even better than ordinary milk, but it could not be taken for more than six or seven days, as after that time complaint was made of a troublesome feeling of oppression in the stomach and bowels. Dr. Polyák thinks it quite impossible that long-continued use of talc can heal intestinal ulcers. Lactic acid proved in his hands a much more satisfactory remedy. The initial dose employed was thirty grains per diem in four ounces of water; this was increased subsequently, but not more than seventy-five grains per diem were given. On the third day the diarrhœa and the pain were generally arrested, and during the next day or two the stools assumed their ordinory character. It was found advisable to continue to give small doses for some time longer. The patients bore the treatment well; it produced no diminution of appetite, and, unless continued for a long time, gave rise to no disagreeable symptoms. Dr. Polyák thinks it possible that even ulcers of the intestines may be healed by this means.—*Lancet.*

THE

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THE

CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, July 13, 1889. *WHOLE VOLUME LXII.*

Addresses.

ADDRESS ON SURGERY.

Delivered at the Fortieth Annual Meeting of the American Medical Association, Newport, R. I., June 27, 1889,

By Phineas S. Conner, M.D.,
Cincinnati, O.

The surgery of the century has been of three periods: the preanæsthetic, the anæsthetic and the modern one. Operative brilliancy characterized the first. The suffering inseparably connected with the use of the knife and the nervous depression resulting therefrom was to be limited chiefly by celerity of execution; hence, the swift moving hand was an essential part of the equipment of the fittest surgeon.

When in the amphitheatre of the Massachusetts General Hospital, "the problem of surgical anæsthesia was definitively solved," a new period began. Pain was no more, and it was permitted to examine earlier and more thoroughly, to remove more extensively, and to operate successfully in regions previously altogether, or in great measure, beyond the reach of art. For twenty years or more, progress was in the line of diagnosis, of development of new and better methods of operating, of extension of the range of surgical interference. Time was no longer an element of prime importance, and the work was regarded as quickly enough done when well and thoroughly done—too much so, in fact, for not seldom the best interests of the patient have been jeopardized by unnecessary delay in execution, that would not have occurred but for the existing profound insensibility. But though operations in this anæsthetic period were without much of the terrors of the olden time, they yet fell far short of producing the wished for result in preservation of life and early restoration to health. Wound complications were still as ever the bane of surgery, and too often the wisest planned and best executed operation resulted in failure because of the supervention of one form or other of septic infection.

It is scarcely twenty years since patient investigation, careful experimentation and practical testing began to throw strong clear light upon that most obscure of the subjects of medical study, the causes of disease. As never before in the history of medicine, truly scientific methods of research have been adopted and pursued by a multitude of trained observers in all civilized countries, and surgery has entered upon its scientific period, in which operator and patient are profiting by the labors of the chemist, the botanist, the physiologist, the physician, equally with those of the practical and experimental surgeon. It seems but yesterday when Lister's early papers startled the world. It is but twenty-two years since the first one was published, yet what enormous advances since then in knowledge, in treatment, and in the field of operative interference. A new department of science, surgical bacteriology, has been created (for what was done prior to 1867 may for practical purposes be left out of consideration), and in its development has been worked out the mycotic origin of all those pathological processes looked upon as inseparable from traumatisms, or almost necessarily associated with them if severe. Suppurations, gangrene, septic infection, erysipelas, tetanus, we know to depend upon the presence or the action of one or other of definite organisms that may be isolated, cultivated and inoculated. Recognizing the cause, it has been comparatively easy to devise methods, more or less perfect in action, to prevent the development or neutralize the influence of it, and there has been worked out an antiseptic and aseptic wound treatment, the results of which are simply marvelous. But just here I must protest against the wisdom or the justice of the sweeping declarations of a few enthusiasts, who see in other than speedy recovery after injury or operation evidences of what they are pleased to consider criminal ignorance or neglect.

The existing strong probability that in any given case septic infection might be prevented, has given warrant for the performance of operations that in preaseptic days were not to be thought of.

Abdominal surgery, that so short a time ago meant scarcely more than the removal of an ovarian tumor too often carried until death was evidently fast approaching, now includes operations upon almost every part of each hollow and solid viscus, and laparotomy has taken its place as a safe, proper, and often indispensable prerequisite to the determination of obscure diseases. Penetrating and perforating gunshot wounds, so generally fatal when treated by rest and opium, have in at least forty cases been recovered from after section and suture, and there are now but few surgeons still unconvinced of the wisdom of early active interference. At our last meeting Senn's carefully elaborated and beautiful demonstrations set forth a means of determining the existence and location of intestinal wounds that if safe, as it has thus far seemed to be, will remove the greatest objection to laparotomy in these cases, the uncertainty in the earlier hours of bowel perforation—and prevent what otherwise will occur, the overlooking of one or more lesions. It is not to be expected that all or any close approximation to all of these very dangerous wounds will be saved by early operation, for great injury will ordinarily be produced by the bullet, be it large or small; but every case that recovers after section and suture may fairly be considered as rescued from an otherwise almost inevitable death. Unquestionably the laying open of the peritoneum and operating upon an abdominal organ has at times been carried too far. Useless work has been performed, and life has been sacrificed, for it is not true (so far certainly as operators in general are concerned) that abdominal section is in itself without danger, doing no harm if it accomplishes no good. But not a day goes by that somewhere or other life is not prolonged and comfort secured by an intraperitoneal ligation, suture, anastomosis or excision, rendered proper, may we not say possible, only by the aseptic results of scientific discovery and experimentation.

So, too, the diseases and injuries of the other great cavities are being attacked by the surgeon's knife guided by the diagnostic knowledge, the localizing exactness, and the technical skill of the physician, the physiologist, and the vivisector.

There has been but a beginning of intra-thoracic surgery, though for years empyemas have been treated by free incisions, supplemented not seldom by extensive excisions of portions of the chest wall, and even in pre-aseptic days deeply lodged foreign bodies were removed. Only very recently has the lung been cut into for the evacuation of abscesses and the treatment of gangrenous areas, such pneumonotomies resulting favorably in one-half of the reported cases; and as yet but few sub-pleural tumors have been attacked. There is every reason for believing that in the near future surgery will be able to render great service to the subjects of not a few forms of thoracic disease now regarded as beyond the reach of art.

The most recent and the most brilliant triumphs have been in the treatment of diseases and injuries of the brain and cord. Nowhere else have our art and science so joined hands in affording relief as here. Tumors removed, foreign bodies taken away and their tracks drained, convulsion-centres excised, serous effusions tapped, life preserved, and comfort secured; so reads the record. Much remains to be done in the determination of the trouble, the exact localization of the mischief, the perfection of technique. Not seldom mistakes will be made, errors committed; but it will be more and more demonstrated that the trained mind and the skilful hand, working together, can recognize and successfully treat otherwise irremediable affections within the skull and the spinal column.

As the operative procedures necessary for the exposure and removal of the spinous processes and laminæ of the vertebræ are but little dangerous, and as septic meningitis can almost certainly be prevented, a change may reasonably be looked for in the treatment of vertebral fractures, especially those in the lower half of the column. Up to this time the cases in which active interference has been made have almost always been those of long duration, in which existing inflammatory changes in the cord, if nothing worse, could not but prevent any favorable result; but even in these, of late, the patient has been none the worse for the operation. Without doubt, early removal of pressure, whether made by bone or blood it matters not, would save many an one from all those deplorable conditions consequent upon myelitis, with which we are unfortunately too familiar.

Is there any good reason why spine fractures should not be treated as skull fractures? And who would now for a moment think of rest and position as the routine treatment of the latter injuries?

But in this scientific period there has been much more accomplished than extension of the range of operative interference, great and important as this has been. As never before it has been possible to preserve damaged parts and to retain important functions, to replace completely detached pieces of bone and secure adhesion as perfect as of the fragments in a simple fracture, to transfer large areas of integument and ingraft pieces of bone, to supply deficiencies in soft or hard parts by skin or bone from dog, rabbit, chicken, or frog. Every department of conservative surgery has been and will yet more be benefited by the preventing of the evils consequent upon the action of minute organisms.

The two diseases that produce the widest destruction to part and to life are tuberculosis and cancer. The former, that until the discovery of its causative bacillus was regarded as of rare occurrence in parts belonging to the domain of surgery, is now known to be the producer of the vast proportion of the diseases of bones and joints, and of many of those attacking the skin and more external organs.

Primarily and often for a long time local, if allowed to go on unchecked, it affects other and remote regions, perhaps rapidly becoming generalized. But what has been learned respecting it—that it may attack any part, the blood circulation in which is disturbed by general enfeeblement or local injury of ordinarily not severe character; that the bacilli may be destroyed or become encapsulated; that the softened tissues may, in like manner, be taken up and carried off or shut in temporarily or permanently; that if the diseased focus be completely removed, as it often may, the part and the whole are as if it had never existed, except so far as function is disturbed by the loss of what has been taken away, and by the scar tissue resulting? How has treatment been affected by this knowledge? It is of prime importance that early diagnosis be made. Located in bone or joint and detected while yet limited, prolonged rest, as absolute as possible, will in the majority of cases, certainly in young subjects, secure destruction, absorption, or encapsulation of organisms or affected cells with resulting restoration to health. Advanced to the stage of caseation and liquefaction, rest may yet be followed by recovery, though ordinarily free drainage, with or without associated removal of the infected tissue, will be of great advantage. Injection of agents such as iodoform or the acid phosphate of lime, that will destroy the bacilli and the tuberculous masses, may produce the wished-for cure. But ordinarily it will be better, indeed generally necessary, to remove the affected area either by formal or informal excision or by amputation. Whether diseased joints are best treated by arthrectomies or by typical excisions is one of the questions still *sub judice*, though in the last three years, as never before, it has shown that formal removals of the larger articulations can, in a large proportion of cases, be followed by early repair and solidification without suppuration or constitutional disturbance; even at times with recovery of original function. Though it is not likely that it can ever be said with truth that the days of the lame and the hump-backed have gone by, because of neglect, delay, or generalization of the pathological process, yet we have good reason to believe that further advances in knowledge of the development and extension of the tuberculous disease will enable the surgeons of the future to so limit, ameliorate, and cure the surgical affection, as that they will no longer constitute one of the most important and destructive of the external diseases.

Of cancer it may with truth be said we know very little; yet of nothing do we more need knowledge. Much less often met with than tuberculous disease, it is yet of not infrequent occurrence. In our eight largest cities (Boston, New York, Brooklyn, Philadelphia, Baltimore, Chicago, St. Louis and Cincinnati) during the five years ending December 31, 1888, of 599,684 deaths from all causes 13,094 were from cancer, 2.18 per cent., and as we all know the disease is not peculiarly an urban one. In five of the eight cities, New York, Chicago, Cincinnati, Brooklyn and St. Louis, the death rate was much the same, being in the order given 2.1, 2, 2, 1.94, 1.93 per cent. In Boston it was highest, being 2.98 per cent.; in Baltimore it was 2.4 per cent., and in Philadelphia 2.28 per cent. In Cincinnati in the last year the percentage reached 2.6 per cent., while in 1868 it was but 0.55; an altogether exceptional rate, however, as only once since has it fallen below 1 per cent., in 1870, when it was 0.8. For these figures I am indebted to the health officer, Dr. Stanton. One in fifty, then, of the deaths in an aggregate city population of over five millions is due to this disease, and if we have regard only to the mortality of those within the cancer age, *i.e.*, more than 35 years old, about one in twenty of the deaths is thus produced. Even among the carefully selected adult individuals carrying life insurance, who are free, or are supposed to be, from family predisposition to cancer, from 2.5 to 3.5 per cent. of the mortality is from this disease. The statistics just mentioned, and particularly the marked contrast between the high death rate in Boston and the low one in St. Louis, gave but little support to the theory of Haviland, that low lying lands subject to frequent overflows are those in which the disease is most prevalent.

In preparing the mortality statistics of the census of 1880, Dr. Billings found that the disease was most prevalent in New England and Southern California, and least so in the South and upon the Mississippi. It is to be hoped that in the preparation of the vital statistics of the next census such attention may be given to this subject of occurrence and distribution, and such full and complete reports secured as will add materially to our knowledge, and go far towards determining to the correctness or incorrectness of the views of the English writer named. Care should be taken to separate, if possible, cases of sarcoma from those of cancer.

Hirsch to the contrary notwithstanding, this affection is becoming more common throughout the civilized world, certainly is so in our own country and in Great Britain. Increased accuracy of diagnosis will not account for a doubling in twenty years of its mortality rate in Massachusetts or in Cincinnati, or in less than twice twenty years in England. Frequently, if not usually, attacking individuals in good general health (though oftentimes appearing soon after a period of marked mental anxiety and depression), it has regard neither to social conditions nor hygienic surroundings. Unlike consumption, which is often of limited duration, ending in recovery, and at the worst ordinarily bringing death gently, cancer left to itself very rarely is spontaneously eliminated, is almost inevitably destructive to part and to life, and is often attended with severe physical and mental suffering.

What is its starting point? An unused long-dormant embryonic cell, at length aroused to activity by local irritation, general enfeeblement or nervous exhaustion? In all probability, no. An abnormal epithelial development, abnormal because unconfined within its normal limits? But why unconfined? An epithelial cell undergoing proper degenerative changes, but arrested at some point short of its complete alteration? What stops its retrograde movement? Is it of mycotic origin? That it should be so would hardly be more strange than that lupus or lepra should be. That it is so has not yet been proved. The many investigations that have been made, some of them for a time apparently fruitful, have thus far failed to discover a causative bacillus, unless further and extended cultivations and inoculations shall prove that Kubasoff has actually found it. Experimental inoculations have again and again produced no specific result, but Lampiasi has claimed that by using a bacillus culture from the blood he succeeded in causing in a healthy part of the patient's skin the growth of a nodule having "an alveolar stroma with wide meshes, which contained many epithelial cells of different form and sizes;" and Hanan has twice successfully transplanted from rat to rat.

No more inviting field is open to the bacteriologists and experimenters of our country (and we have a number of them, as also well equipped laboratories) than this very one of cancer. Cases are numerous, specimens are being daily secured, and there is no reason why America should not now do full part in settling the vexed questions of nature and origin. The imperative necessities of a struggle for existence, and the intense practicality of a new and developing country have heretofore prevented any but the very few filled with enthusiasm or independent of fortune from engaging in purely scientific studies involving minute investigation and patient labor with often no apparent practical outcome. But the times are changing, and the profession of our country may, and doubtless will, ere long be as well and favorably known in biological research as it has been, and is, in relation to ovariotomy, to ether, to the hip, to the treatment of stone, to the surgical diseases of women, to abdominal section, to a multitude of affections, and the means of treating them.

As we see it in lip or breast, or uterus or stomach, or it matters not what part or organ, is cancer a local disease, or but a local manifestation of a constitutional state? The question is still an open one, though the great majority of pathologists and clinicians are now agreed that wherever seated it is primarily and for a time purely local, whatever may be the general conditions inherited or acquired that permit or favor its development. If not of limited area and capable of complete removal, operative interference can be justified only on the ground of affording temporary relief — unfortunately all that is accomplished in the majority of cases submitted to the knife. But there is great encouragement in the knowledge that a certain percentage of patients operated upon do recover; that is, remain free from recurrence for three or more years; and that this percentage is larger or smaller, according as the disease is so situated as to be early detected and thoroughly removed, or the contrary. Located in the lower lip or the cervix uteri, for example, two out of five patients operated upon get well, in the breast one in eight. Why this great difference? Because, we may believe, of the site itself, and of the degree and rapidity of extension, in parts immediately adjacent and of glandular involvement; in other words, of the likelihood of early and the possibility of complete extirpation, or the opposite. How are to be regarded those cases in which, after five, ten or twenty years of apparently perfect health, the disease again shows itself and destroys life? As of long quiescence of infected and infecting cells or of a new and independent affection. The latter explanation certainly makes a far less demand upon our credulity, and it is no more strange that there should be a second than a first attack in a person and tissues possessing an undetermined and unknown receptivity, and such there certainly must be that cancer may be developed at all.

Of nothing are we more certain than of the immense advantage there is in early recognition and speedy removal; and, on the other hand, of the utter uselessness, so far at least as the ultimate result is concerned, of any surgical interference after a wide extension has taken place.

In perfecting, therefore, the means of establishing diagnosis at an early day lies an important work in the future. Though consideration of age, of location, of preexisting long-continued irritation, go far towards settling the nature of a given tumor, and upon such estimation of probabilities action may generally be safely taken, yet, as a rule, certainty of the character of the growth can only be had after scientific determination of its anatomical constitution. Whatever, then, makes it possible to safely, easily and without pain remove for microscopic examination, a sufficiently extensive piece of the mass to show its deep as well as superficial structure, is of much practical value. A convenient and promising little instrument has lately been given to the profession by Dr. Collins Warren, of Boston.

Physiological and chemical investigations have furnished us with early and reliable evidence of the existence of cancer of the stomach in absence of the hydrochloric acid from the secretions of that viscus; may not kindred investigations give us like aid when other organs are affected?

The modern and scientific wound treatment now enables the surgeon to remove more extensively and at the same time safely, so that active interference may reasonably be expected to be, and is, attended with much better results than could be looked for a few years ago. Much of the work, though, that in the last decade has been done upon internal cancers, has been of questionable utility; chiefly because of its late performance.

What will the future reveal respecting the non-operative treatment? Will a drug or drugs be found to secure destruction and removal of the morbid mass? May the moderate continued electric current or powerful interrupted currents "flashed through" prove to produce, as has been claimed for them, entire disappearance of the diseased cells? Can some pathogenic organism be inoculated that, without killing the patient, will break down the malignant growth? We all know what has been done with the micrococcus of erysipelas.

In nothing could this Association do more than in determining by collective investigation and thorough committee work the frequency of occurrence of carcinoma in the country as a whole, and in its several States, the relation borne (if any) to geological formation, the age of appearance, the relative affection of parts and organs, the influence of therapeutic treatment, and the duration of life with and without operation. Five years of such work would suffice to accumulate a mass of statistics of very great value, the study of which could not but advance the best interests of patients and practitioners; and in this, as in everything else, "many hands make light work." To physicians, surgeons and therapeutists, the subject is one of prime importance, and only by combined scientific and practical work can it be determined what excites and produces the disease, and what can secure its relief.

As we survey the advances, etiological, diagnostic and therapeutic, made in the few years just past, that are of the scientific period, and consider, even in the most hurried way, the problems that are yet awaiting solution, problems relating to nature, origin and treatment of the diseases and injuries and parts within the domain of surgery, what may we not reasonably anticipate as the future of our science and art? Accidents must occur, diseases will prevail, no matter how great the triumphs of preventive medicine. Years ago it was declared that operative surgery had reached its climax. Yet, since then, operations have over and again been done within abdomen, chest, and skull, upon the larynx, throat, and spinal cord, that in boldness of conception and brilliancy of execution have no parallel in the history of medicine. The end is not yet, nor will it be while, the world over, there are active minds and cunning hands busied with the determination of the existence and extent of surgical affections, and ready and able to remove them, aided more and more by the labors of investigators in many departments of science, general as well as medical. Year by year, he who may deliver the Address on Surgery will be able to report doubts removed, discoveries made, remedies employed, and operations done.

THE LOCAL APPLICATION OF HYDRASTIS CANADENSIS.—The peculiar feature of the fluid extract of hydrastis canadensis of producing vascular contraction after its internal administration has led to its internal employment in cases of chronic congestion of various organs. It is strange, however, that as yet it does not seem to have been employed as a local application in spite of the fact that pharmacological experiments with hydrastis have shown that this body is not only a local astringent, but also possesses local anæsthetic properties, a fact which led Dr. Felsenburg (*Weiner Medisinische Blätter*, No. 48, 1888) to test the result of local application of the fluid extract of the hydrastis. He states that his results have encouraged him to further experiments in this connection. His studies were made on a series of cases of chronic pharyngitis, complicated with enlarged tonsils. In all cases he states that the results were good. The local application of the fluid extract to the diseased mucous membrane showed a marked decrease in the contraction of the vessels and reduction of swelling with relief of the subjective symptoms. He states that patients readily accustom themselves to the bitter taste of this remedy, and even prefer the painting of the throat with the fluid extract to other forms of gargles or other local applications. Dr. Felsenberg thinks that perhaps a similar use of this remedy in the case of disease of other mucous membrane might lead to equally satisfactory results.—*Therapeutic Gazette.*

INJECTIONS OF TINCTURE OF IODINE IN THE TREATMENT OF GOITRE. — M. Stoudentsky (*Revue Génerale de Clinique et de Thérapéutique*) reports nine cases of goitre treated by injections of tincture of iodine, in which there was either complete disappearance or considerable diminution of the tumor. The author prefers Lugol's solution from the fact that it produces less pain. Injections may be made once a week with a hypodermic syringe, and should be very slowly performed.—*Canada Med. Record.*

Original Articles.

POST-TYPHOID PARALYSES.

A Paper read before the Academy of Medicine, June 3, 1889,

By F. Kebler, M.D.,
Adjunct Professor of Practice of Medicine, Medical College of Ohio.

When we consider how almost invariably we have symptoms relating to the nervous system in a case of typhoid fever, how well marked they are, and how, as it were, they place their impress on the whole course of the disease, we cannot but wonder, I think, that sequelæ pertaining to the nervous system are so rare.

But if we complain of the rarity of these sequelæ, we cannot of the various parts of the nervous system which may be involved. Meningitis, hemiplegia, paraplegia, paralysis of the muscles supplied by one nerve, to say nothing of chorea and permanent weakness of the mind, or even a change in the disposition of the individual, have been noted and put on record by numerous individuals.

In spite, however, of the fact that the various nervous lesions following this disease would seem to be an inviting field for the clinician, it is surprising to find out how few have written about it, in any way exhaustively, and how often, even in the works of the best of authors, we only find a vague and unsatisfactory reference to it. We may find a few general remarks, but nothing tangible, nothing which we can seize and retain with any satisfaction.

Nothnagel, in the *Deutsche Archiv für Klin. Med.*, 1872, has given as careful attention to the subject probably as any one, and more recently Ross, in the third volume of the Transactions of the Association of American Physicians, has reported several cases of his own, and summed up well the present knowledge of the subject.

My own experience with the complication is very slight, having only seen two cases which could be called true paralysis following typhoid. The first case I had the honor of showing this society on December 14, 1886. It was that of a man, who, after an ordinary attack of typhoid fever, treated by me in St. Mary's Hospital, of this city, was discharged as convalescent on October 12. In about a week, however, — on October 18, — he began to complain of difficulty of vision, more particularly diplopia, and also difficulty in swallowing, the fluids which were taken being regurgitated through the nose. Following that came a very decided paresis of the arms and legs, with ataxia, and the reflexes were absent. Anæsthesia over the affected parts was well marked. This condition gradually improved, and when I presented him here on December 14 only slight paresis and ataxia remained. The other case was that of a young man whom I ceased visiting for a case of well-marked typhoid, although without any very severe symptoms, on April 3. It was the twenty-fifth day of the disease. I was called on the sixth, and found him suffering from some shooting pains, as he described them, in both legs. He was lying in bed at that time, and as I looked on the case as a slight neuralgic trouble I did not examine him as to his ability to move his legs. The next day, however, there was marked paresis of both legs, coupled, apparently, with some slight anæsthesia. The walk was decidedly ataxic. No trouble with either the bowels or rectum. Temperature in the axilla 100° F. I was unable to find any marked change in the patellar reflex. On the eighth day the temperature was normal; absence of patellar reflex; the paresis increased, although at no time did it become a true paralysis. The case went on without any other symptoms of interest until the eighteenth, when I discharged him as convalescent, with only a very slight paresis remaining. I have since seen him, and he has no symptoms of his previous paresis.

The conditions of the individual which predispose to the paralysis are not clear. It can hardly be the height of the fever, *per se*, affecting the various parts of the nervous system, and, as Ross observes, "although these sequential paralyses are more frequently observed after somewhat severe attacks of typhoid, yet they do not specially occur when the fever has been marked by excess of nervous disturbance; nor can any predisposing cause, as the influence of country or neurotic temperament, be shown to play any part." His remarks are certainly borne out in my two cases, which were average cases of typhoid, with nothing particular to mark their course; both were young men of excellent habits and with no nervous diseases in their own history or that of their family, so far as I was able to find out.

If our knowledge of the etiology of this condition is at fault, what can we say of our knowledge of the pathological anatomy? I have examined so far as I could, have hunted through papers, transactions, and text-books, in an endeavor to find something which could be looked upon as reliable. But I could find nothing. There is hardly a condition in which we find the brain, spinal cord or peripheral nerves on the post-mortem table but what is advanced as to the post-mortem appearances. Œdema of the brain is advanced to explain some of the cases, but when we consider how extremely common this so-called œdema of the brain is, how often we find it after the most varied symptoms during life, and often when there were no symptoms referable to the brain at all, we can see how wrong it would be to call that the general cause of the paralysis. The influence of the high temperature, giving rise to a degeneration of the nerves or of the elements of the central nervous system, has been advanced as the usual cause of the paralysis. But, as has been said, these paralyses do not particularly follow cases in which the temperature is very high. There are, of course, a certain number of cases of paralysis due to thrombus or embolus of the arteries of the brain, but these must be looked upon, not as sequelæ of typhoid, but as complications, not due so much to the poison of the disease as to the weakness of the circulation. Extravasations into or temporary hyperæmia of the cord has also been brought forward to explain some cases. Nothing definite, however, can be said.

It seems to me only fair to suppose that we may have a number of lesions as different as the character of the symptoms. The same kind of lesion could hardly produce in one man a paralysis of the muscles supplied by one nerve, in another a paraplegia, and in a third a hemiplegia.

We all know how difficult it is to make out the minute changes which occur in the nervous system, and it is not, therefore, surprising that we are at fault here.

There is rarely any difficulty in making a diagnosis. The only paralysis we must differentiate it from is that following diphtheria, and as diphtheria sometimes complicates typhoid we may be at a loss. In the firstcase reported in this paper the possibility of such a thing occurred to me, but as the man was under careful watching I hardly think it possible.

In lead poison the history is usually enough, although some of the nervous symptoms of lead are very like those of typhoid. Compare, for instance, the wild delirium of encephalopathy with some of the head symptoms following typhoid. In both diseases we have groups of muscles affected, and I had the good fortune to observe, side by side, the general typhoid paralysis mentioned to night and a very similar case following lead poison.

The treatment of these cases can be easily dismissed. They tend to get well of themselves, even where the paralysis is extensive and severe. In one of the cases reported by Ross, although the case was very much reduced and large bed-sores had formed, still the patient recovered after a prolonged illness. About all we can do is to endeavor to keep up the nutrition of the muscles and the strength of the patient in the usual ways.

I have said in the beginning of this paper that post-typhoid paralysis was very uncommon, but there is certainly one condition which is often overlooked. I refer to very mild forms of paresis. It seems to me more than probable that some cases which we look upon merely as muscular weakness following typhoid may have a deeper origin. Nothnagel says that simple alterations of sensibility will be frequently found if looked for, more particularly in the legs and feet. Why not, therefore, slight alterations in the power of motion?

It seems possible, too, that some apparent cases of post-diphtheritic paralysis are post-typhoid, and not post-diphtheritic. If a patient is seen with a paralysis of the throat, even although the only history of diphtheria is the acknowledgement of the patient that he believed he had a sore throat a little while ago, and sometimes even that is not obtainable except by leading questions, still the diagnosis is always, I may say, post-diphtheritic. We know that severe typhoid may present almost no symptoms, and a perforation of the bowel cause death, and only on autopsy the cause be found; and I advance the idea with a good deal of diffidence, that some so-called post-diphtheritic may be post-typhoid paralyses, after a very mild case of typhoid fever.

Society Reports.

ACADEMY OF MEDICINE.

OFFICIAL REPORT.

Meeting of June 3, 1889.

The President, WM. JUDKINS, M.D., in the Chair.

G. A. FACKLER, M.D., Secretary.

DR. FREDERICK KEBLER read a paper entitled

Post-Typhoid Paralyses (see page 35).

DISCUSSION.

DR. CLEVELAND considered such cases very rare. He did not remember seeing one until his attention was called to the subject by a previous report of the essayist. Yet, thinking over the subject, we might raise the inquiry whether these cases are not more frequent than we believe. Paresis and muscular weakness are so closely akin that it is frequently difficult to decide where one begins and the other ends. Hence he could not help thinking that in the extreme cases of muscular weakness following typhoid fever there must be a little paralysis of sensation or motion. Speaker referred to a case narrated to him in which typhoid fever was followed by permanent hemiplegia.

DR. GILES S. MITCHELL remarked that it had been his fortune to see a great deal of typhoid fever, yet no case of post-typhoid paralysis had come under his observation. That such cases do occur is beyond question. Why they occur so seldom is strange. There is no disease in which pathological changes in organs and tissues are more marked, more universal, and more characteristic than in typhoid fever. Parenchymatous changes, pathognomonic of the disease, occur in all the organs save the brain and nervous system. Yet it is reasonable to infer that in a disease where such severe functional disturbances of the cerebro-spinal system exist there must be constant and definite parenchymatous changes. The muscular degeneration is of two kinds: Ordinary fatty degeneration, and vitreous, which consists in the conversion of the contractile substance of the primitive bundles into a homogeneous, waxy, shining mass. Frequently both forms of degeneration occur together, one or the other predominating. In both forms the muscular fibres become thicker and more brittle than normal. The want of muscular power sometimes prominent during the height of the fever may depend upon disturbances of the nervous system, but the great muscular weakness always present during convalescence is due almost entirely to changes in the muscles themselves. The muscles have virtually been destroyed, and their regeneration is necessary for a return of strength. Speaker said the most recent authorities claim that it is the specific poison of typhoid fever that produces the extensive pathological lesions and not the high temperature, structural changes being most marked in individuals who have died of the adynamic form of the disease, where the temperature was not higher than 101°.

Speaker recalled the case of a young man who became hemiplegic on the tenth day of the fever and died on the sixteenth. A post-mortem was not granted.

DR. ZENNER had listened to the paper with great interest. It is true that we have as yet no known data from the morbid anatomy of post-febrile paralyses. But this is due to the fact that the patients do not die, since the symptoms come on during the convalescent stage of the fever, and of themselves do not carry off the patient. Nevertheless we can usually arrive at some idea of the pathological lesions from the symptoms manifested, and we learn that these are very varied. To illustrate, the speaker would cite a number of cases:

The first was that of a man, thirty-two years of age, in whom hemiplegia came on during convalescence from typhoid fever, and remained permanently. Here there can be no doubt that the lesion was in the brain, and, furthermore, that it was a vascular one. A vessel was either ruptured or became occluded, very likely the latter, since at that age rupture is very unlikely. Disease had caused changes in the lining membranes of the vessel, and the condition of the blood led to coagulation. Such cases are rare, and but few are reported.

The second case was that of a man twenty or twenty-five years of age, to whom the speaker had been called about two months ago. He had had a rather prolonged, severe attack of typhoid fever, and when he began to recover from the fever gradually his lower extremities grew weaker. The condition was insidious, and gradually increased, but not beyond a certain limit. When seen the condition was of six weeks' standing, and, if anything, there had been a slight change for the better. There was muscular weakness; increase of tendon reflex; no impairment of sensibility. Here, no doubt, on account of the absence of peripheral symptoms, the lesion was in the spinal cord. It was a lesion of no great gravity, nutritive rather than inflammatory change. Such spinal troubles are probably the most common of of the paralyses following typhoid, and are usually of only a few months duration. There are other cases of spinal origin in which the paralysis is much more complete but is commonly transitory, terminating in recovery.

In the third class the trouble is in the peripheral nerves.

The first case reported by the essayist is rather unique. There is a similarity between its symptoms and those observed in diphtheritic paralyses. The paralysis was no doubt in part peripheral, certainly that affecting the throat and eye. The ataxic symptoms were probably spinal. There is no doubt but that we may have pathological changes in various parts of the spinal cord, brain, and peripheral nerves. One or all may be affected.

We do not know the exact pathogenesis of these paralyses. But probably it is something more than general systemic disturbances caused by the fever. Possibly there is some direct relationship between the toxic agent of the disease and the subsequent paralysis. At least we know that while symptoms may, and often do, attend any of the infectious diseases, there are some, for instance diphtheria, for which they have a special predilection, and in such instances the general systemic disturbances, such as high fever, loss of flesh, etc., may have been inconsiderable.

Dr. Carpenter referred to a case of a lady nineteen years of age, who had a severe attack of typhoid fever. There was present high temperature and extreme delirium from beginning to end. There was subsequently considerable loss of motion on one side; accompanied by a decided diminution in size. Patient made a perfect recovery.

Dr. DeBeck had had the good fortune to see Dr. Kebler's patient. The occurrence of ophthalmoplegias after typhoid has been noticed by several accurate observers. There is an analogy between this and the similar post-diphtheritic trouble. In this case the diplopia was due to paresis of the third nerve. The pupil was affected differently than in the diphtheritic form. In the latter the pupil is usually dilated and rather, or even perfectly, fixed. In this case, however, the behavior of the pupil was of a peculiar character: It was dilated *ad maximum;* in concentrating the light upon it with a lens, it contracted down quite small, almost to the size of that of the normal eye. Then it relaxed under the same illumination to a moderate dilatation. We may say that it was dilated to seven or eight millimetres, contracted to two to three millimetres, and then relaxed to five or six millimetres. This shows a peculiar partial paresis, that under a stimulant will allow the sphincter to act properly for a few moments, but then again relax. Accommodation in the case was also defective. There would be nothing to differentiate the ophthalmoplegia after typhoid from the post-diphtheritic form except possibly the peculiar action of the pupil noted in this case.

Deleterious Effects of Cocaine.

Dr. Wm. Judkins reported that he had for the fourteenth time since January 1st performed circumcision, with the aid of hypodermic injections of cocaine. He desired to call attention to two cases showing the deleterious effects of cocaine.

Last April a man, fifty-two years of age, subjected himself to the operation (circumcision) for the relief of herpes. Perfect local anæsthesia had been produced, when he suddenly grew faint, presenting all the symptoms of syncope. Cardiac pulsation went down to fifty, but he rallied soon, and was able, after completion of the operation, to take a cab and reach his hotel. Within three or four days he was out and well.

Last Saturday he witnessed a repetition of these symptoms in a patient. He had listened to the heart before the operation, and found the pulse-rate seventy-two per minute. During the operation, with the symptoms of syncope, it went down to sixty. The peculiar feature about the case is that now, three days after the operation, the pulse is still sixty, and to-day, after an exertion of mounting a flight of stairs, it became lowered to forty-eight.

Dr. Reed regarded some of the phenomena just reported as rather extraordinary. They are at variance with his own experience. He had learned to regard the remedy as dangerous. He had used it a number of times in operations upon the cervix and perineum. Upon the last two occasions he had become alarmed at the results. There was no depression but a marked acceleration of the cardiac action. This did not annoy him as much as the respiratory trouble. There seemed to be almost a respiratory tetanus. In the last case the rhythm of breathing suggested to him the Cheyne-Stokes respiration. During part of the time the symptoms were alarming.

Dr. B. M. Ricketts reported a large and varied experience with the use of cocaine. He had probably seen the first attempt at its use by Dr. St. John Roosa. Since then the speaker had used it in a number of plastic operations, in removal of the eye, removal of fatty tumors and of fingers, in all circumcisions, etc. In one case, for the restoration of the upper lip, he had used seven and one-half grains in one and one-half hours. In circumcision he makes but one injection, in the median line. He weighs the amount administered himself, and judges the quantity by the physical condition of the patient. He has never witnessed dangerous symptoms. In performing an operation for fistula, he had injected two and one-fourth grains. This produced delirium for a while; pulse rose to 110; respiration was rather slow, yawning, but the patient came out all right after two or three hours.

Dr. Hall had seen Dr. Reed's case, and certainly agrees that the patient was very ill. What would Dr. Ricketts term alarming symptoms, if those described by him as having occurred in his last case were not?

Dr. DeBeck had seen three instances in which the injection of cocaine was followed by alarming symptoms. They occurred in two different cases. One occurred several years ago. He had used a four per cent. solution for tattooing the cornea. Patient was a woman of large physique, and the symptoms were not those of fright. The symptoms came on not during but several minutes after the operation. The latter was really finished. Patient became pallid, clammy, respiration diminished in frequency, pulse and heart's action accelerated and weak, and finally respiration sank to six per minute and gaspy. With proper stimulation, whiskey injection, heat, etc., she came out, but felt weak and feeble. The same patient, after a strabismus operation made subsequently, went through the same unpleasant course.

Since then he had experienced no trouble with cocaine until only a few days ago, when, during an operation for cataract, the patient manifested symptoms as above described, which became so alarming as to necessitate the abandonment of the operation. But six to eight drops of a five per cent. solution had been employed.

Meeting of June 10, 1889.

The President, Wm. Judkins, M.D., in the Chair.

G. A. Fackler, M.D., Secretary.

Silver Gilders' Cramp.

Dr. Zenner presented a patient belonging to that large class of cases usually termed professional neuroses, of which writers' cramp, piano-players' cramp, etc., are common instances. The number of kinds of professional neuroses is on the increase, because with the advance in the mechanical arts, increase in the division of labor, etc., groups of muscles are, to a greater degree than hitherto, called into highly specialized and long continued actions.

This patient presents a variety which has not hitherto been observed, so far as the speaker knows. Inasmuch as his occupation is that of a silver gilder, the speaker termed the disease silver gilders' cramp. His occupation requires the application of silver leaves upon the moulding of frames. In the performance of this act the arm is held out freely, without support, the elbow on a line with the chest and at quite a distance from it, while there is a constant flexion and extension of the elbow so as to bring the hand first to the silver leaf and then to the moulding where the leaf is to be deposited, and at the same time a flexion and extension of the wrist in picking up and laying down the leaf. The man has been doing this kind of work for seventeen years. The greater part of the day is devoted to the kind of movements just described. A smaller part of the day he burnishes the gilding. His trouble began about six months ago. He first observed that his arm was drawn to the body, the elbow held firmly against the latter, so that the arm was no longer held out freely while the movements of flexion and extension of elbow and wrist were made. Shortly thereafter he began to suffer with pain, chiefly in the anterior part of the wrist, the inner side of the arm, and at a part near the shoulder; also, he had occasional cramps in the arm, and the arm was more or less tremulous. He has continued at his work, but is unable to do as much as before, and does not do that as well as formerly. But while he has this difficulty in performing these accustomed acts, the arm appears to retain its full power, and other acts, for instance burnishing, are performed as well as before.

An analysis of the case shows its essential features to be like those of other professional neuroses. The most specialized muscular actions are the earliest impaired. In this instance it is the act of holding the elbow freely away from the body, while the mere flexing and extending of wrist and elbow are less specialized and less affected. In writers' cramp the most specialized muscular action is in the grasping of the pen between fingers and thumb, and next in holding the wrist and arm in position; and these, in their order, are the parts most frequently and earliest attacked. At the same time, in the various movements just referred to there is persistent muscular contraction, while in the acts of flexion and extension there is continuous contraction and relaxation of muscles.

Also, in writers' cramp as in the case presented the arm can for a long time be used for other acts besides writing as well as before, though in very severe cases all movements of the limb become impaired.

The pathology of the disease is obscure. It is a question whether the trouble is peripheral or central. The speaker gave reasons for believing that both central and peripheral parts of the nervous system are at fault.

In the patient presented there were no other symptoms of nervous disease. The optic disks, pupils, and tendon reflexes were normal, and no impairment of motion or sensation was anywhere manifest.

The only radical cure for the patient is changing his occupation. Various internal and external remedies have been used, with some relief of his symptoms.

THE AMERICAN MEDICAL ASSOCIATION.

Fortieth Annual Meeting, held at Newport R. I., June 25, 26, 27, 28, 1889.

SECTION OF SURGERY.

DR. N. P. DANDRIDGE, of Cincinnati, Chairman.

THE CHAIRMAN, in his

Introductory Address,

referred briefly to the remarkable advances that have been made in the treatment of fractures, displacements, and diseases of the spine. In connection with Pott's disease he reported the case of a child two years paralyzed, in which entire recovery, now continued four years, ensued upon careful restoration of the continuity of the cord. The various ways in which fracture may produce pressure upon the cord with consequent paralysis were considered. Operative interference must be considered first in regard to the advisability of immediate active efforts at relief.

He then reported five cases which had recently come under his observation. In some of them the application of a plaster jacket was all that was required; in others, the spinous processes were removed by the trephine. He preferred suspension by hammock and the application of a plaster jacket. Sufficient suspension can be made and an anæsthetic can be safely used if desired. The method of using the hammock was explained. It is simple, and in only one case was any pain complained of. A case was reported in which marked improvement followed simple hammock suspension. Suspension as now practiced is, however, a method so new that we cannot now determine its value.

Early operative measures—resection—should not be too readily laid aside, and in any case in which all other methods have failed, it should be tried. Although he had made several operations he had not yet secured a complete recovery. Since, however, recovery has been almost complete in many cases, since some lives have been prolonged by it, and since the operation is not now one of very great difficulty, he strongly recommends its adoption.

DR. H. H. SMITH, of Philadelphia, read a paper entitled

Concussion of the Spine in Its Medico-Legal Aspect.

In introducing the subject he briefly reviewed the history of the establishment of the liability of railroads and other corporations for injury in England. He also announced the status of the various States of our own country on the subject.

In all cases of alleged injury of the spine with compression or concussion, frauds are always to be suspected, since statistics show that three-fourths of such cases have been found of that character; a few illustrative cases were then reported.

Admitting the liability of a surgeon to be misled in his diagnosis, let us inquire if there is any violence capable of producing concussion and compression of the cord. This must as yet be admitted as possible. The force required to produce it is, however, greater than is generally supposed.

The neuropathic disturbances which frequently follow injuries may be due to a neurotic condition of the patient, inherited or acquired; in the latter instance frequently as a result of sexual excesses. Charcot pronounces these disturbances hysteria. The speaker, therefore, concluded that real spinal concussion from injury is exceedingly rare. It is always rapidly followed by muscle-wasting. Its development is prompt—a few hours or days—after the injury and not weeks after, when his mind has had time to brood upon it.

Illustrative of the prompt development of symptoms in cases of injury of the cord, several cases were reported with the results of autopsy and microscopic examination. The following conclusions were announced:

1. Concussion of the spine is no longer a matter of doubt but may sometimes occur as the result of various forms of violence, there being nothing peculiar in the application of the force to the body, as the result of derailment or collision of railroad trains.

2. The pathological changes noted in the molecular structure of the cord as the result of shaking, jarring, or so-called concussion of the cord, when attended by paralytic symptoms, may be due to hemorrhagic effusion or be shown post-mortem, in softening or localized or limited atrophy. In cases due to hemorrhage the symptoms may be improved by judicious treatment and permanent disability prevented.

3. The possibility of pre-existing neurasthenia, or hysteria, or fraud on the part of a claimant, should be carefully noted in forming a diagnosis in these cases.

4. As the question of permanent disability, justifying exemplary damages, is frequently raised in claims of the kind alluded to, it should be recollected in forming a prognosis that numerous cases are reported of recovery or marked improvement in a few weeks, and one in three years, even after the occurrence of paralysis.

5. No physician should go into court and swear that a plaintiff has had a concussion of the spinal cord or of its nerves, unless he has proved the disturbance of the normal functions of the cord, as shown in sensation or motion, or both, and that the symptoms appeared *soon* after the injury.

Dr. H. Judd, of Galesburg, Ill., followed with a paper on the same subject. The facts stated in this paper, he said, were drawn solely from his own experience as a surgeon, from cases resulting from or suggested to the patient by accidents; cases in which all objective signs of injury, if any ever existed, had passed away; cases involving the question of supposed or alleged concussion of the spine and which were under observation from a medico-legal aspect; cases in which compensation for personal injury was sought.

His excuse for reading a paper on these cases, he said, was the fact that the question of injury or disease of the spinal cord, if it can exist, is becoming a question of business interest to the surgeon. It is a condition which is frequently estimated in the currency of the country.

The essayist then based his estimate of these cases upon the symptoms which accompanied these injuries in the times which preceded the enactment of laws making corporations liable to the injured. We might, he said, permit these people who practice frauds upon corporations to go on and rob them, saying it was none of our affair, but it is our duty to endeavor to prevent it, since it only trains and encourages malingering and dishonesty. Several fraudulent cases were then reported.

In conclusion, he stated that he questioned the possibility of concussion of the spine.

Dr. William Brodie stated that he believed that such a condition as concussion exists. He did not believe that a correct diagnosis could be arrived at in many cases, short of a jury trial. There is only one way to treat these cases, and that is, for the railway surgeon to tell the companies to settle at once, within twenty-four hours, if possible.

Dr. B. A. Watson, of Jersey City, thought that we are too apt to consider concussion of the spine the condition described by Mr. Erichsen. If any such condition in the spine analogous to concussion of the brain exists, it is exceedingly rare. If any rupture of the ligaments, with laceration of blood-vessels, exists, it is too rare to be considered. No physician should testify to the existence of concussion of the spine in a case presenting no objective signs. From his own experiments he had concluded that most of these cases suffer from lacerations of visceral organs much more frequently than from concussion of the spine. Laceration of the lung with the production of infarction is very common; laceration of liver, spleen, kidney, and even rupture of bladder occur.

Dr. Murphy, of Minnesota, stated that he had been interested in this subject a great many years, but that he did not meet with the success reported in the paper of the Chairman. All of the six cases he had treated during the last winter with plaster and other methods died.

Dr. Pancoast, of Philadelphia, thought that it should be borne in mind that the people had rights to be protected, and that we should not yield too far in our desire to protect corporations from imposture. He thought the law is at fault in demanding to know whether there is a permanent injury. Men should be protected and recompensed for temporary injuries as well as for permanent conditions. He objected emphatically to the suggestion of a former speaker, that the ligaments may stretch. Ligaments, healthy or diseased, *never* stretch.

Dr. Pancoast moved that the discussion of the paper of the Chairman, Dr. Dandridge, be made the order of the day. The motion being carried, he spoke freely on the subject of the rupture of ligaments, claiming that it is due to the tearing of the fibrous connective tissue.

Dr. Maurice Richardson, of Boston, then read a paper on the

Surgery of the Peripheral Nerves.

It consisted of a *résumé* of the operations that have been made on the peripheral nerves for various forms of neuralgia. The first operations described were those which had been performed upon the inferior dental nerve, with a view to its division, stretching of it, or its removal.

The treatment of neuralgia of the sciatic nerve by stretching of the nerve is not held in favor since it has had a fair trial. It should, however, in all probability, be resorted to in cases of inveterate neuralgia of the nerve. From original investigations on the cadaver, he did not believe it possible to exert any traction on the spinal cord by traction on the sciatic. Traction on the nerves of the upper half of the body he believed was of no value whatever. Neurectomy he considered the proper and only efficient means for their relief.

The last subject discussed was nerve-suture, with a report of cases. In a large majority of cases union was perfect and function re-established. In no case, however, was there evidence of the union by first intention alleged by some. If a large piece of nerve has been lost, he preferred the introduction of catgut to that of nerve-fragment. Nerve-grafting was also referred to.

In conclusion, the essayist described the condition of nerve which he had found in nerves affected by neuralgia in which pain is complained of, as in the musculo-spiral, the median, the ulnar, in cases having an obscure history of traumatism.

Dr. Pancoast expressed surprise that the essayist had attributed to Mr. Victor Horsley the operation of exsection of a portion of nerve for neuralgia of the trigeminus. This operation was first performed, to the surprise of the profession, by his distinguished father, whose aim it was to remove as much as possible of the nerve, even endeavoring to withdraw a portion of it from within the oval foramen before dividing it. He performed the operation several times, as had also the speaker.

Dr. Deaver, of Philadelphia, complimented Dr. Richardson on his easy method of reaching the temporo-maxillary nerve, and coincided with him in his preference for neurectomy to stretching.

Dr. W. O. Roberts, of Louisville, reported several cases of operation on the inferior dental nerve, with the dental engine.

Dr. Gordon, of Portland, Me., reported a case in which repeated stretching of the sciatic nerves yielding only transitoy relief, the anterior crural nerves were stretched with the result of apparent cure.

Dr. Burns reported two cases of excision of the superior maxillary nerve, in one of which there had been subsequently removal of the inferior branch.

Dr. Richardson explained that his paper had nothing to do with Horsley, and did not claim any assertion like that referred to by Dr. Pancoast. As he had read only a small portion of his paper, he could readily understand any misunderstanding which had arisen in the discussion. In conclusion, he described the method, preferred by but not original with him, for removal of the infra-orbital nerve and some of the descending branches of Meckel's ganglion through the orbit. —[*Med. News.*

Opium in the Intestinal Hemorrhage of Typhoid Fever. — Dr. J. A. Lindsay, of Belfast, writing on hemorrhage from the bowel in typhoid fever, says that he has always been accustomed to follow Murchison's instructions, and has given tannic acid, laudanum, and turpentine, with ice externally and ergotin by hypodermic injections. Some good authorities prefer to omit the turpentine, but he cannot say that he has ever seen any harm resulting from its use, and its power as a hæmostatic is undoubted. In one of his cases he gave laudanum pretty freely, in spite of the presence of albumen in the urine, and with good results—no sign of narcotism appearing. He is disposed to think that in intestinal hemorrhage, as in hæmatocele and other forms of internal bleeding, opium may be given fearlessly, and pushed even to heroic doses. Stimulants are certainly required in some cases, but must be regulated with much caution. Whilst intestinal hemorrhage in typhoid fever is a serious symptom, it is by no means usually fatal, and prompt and decisive treatment is called for, and will often prove effectual. — *Dublin Journal of Med. Sciences.*

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THE CINCINNATI
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A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

Terms, $3.50 per annum in advance.

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DR. J. C. CULBERTSON,
editor and publisher,
199 W. 7th Street, Cincinnati, Ohio.

Cincinnati, July 13, 1889.

The Week.

THE AMERICAN MEDICAL ASSOCIATION.

The holding of the recent annual meeting of this, the only great representative body of regular practitioners of medicine in this country, causes the annual inquiry: Is the Association as prosperous as it ought to be? And directly opposite replies will be given. We are of those who think a much greater degree of prosperity may be attained.

As constituted, it is a body of delegates, who numerically represent but a small minority of those who are regarded as practitioners of regular medicine. Seven hundred delegates in attendance apparently represent a constituency of but seven thousand, while four thousand subscribers to the Association journal cannot be said to represent a constituency of forty thousand regular practitioners, yet there are not less than sixty thousand physicians in this country who professionally practice regular medicine. These sixty thousand doctors directly and indirectly receive many of the benefits belonging to an adherence to a constituted representative organization.

The names of a very large part of those sixty thousand men were signed to the Constitution of the American Medical Association, which was supposed to be in possession of the Permanent Secretary of that body. But at the last meeting the humiliating announcement was made by that official that "they were lost." The official records supposed to be in his possession—LOST!

If those records were sold or burned as waste paper, it indicates one thing sure, viz., the necessity for the election of a new Secretary. As those valuable records have been lost, it would seem to be a right good time to start some things over again.

With a professed allegiance of over sixty thousand members, there ought to be at the very least thirty to forty thousand active members. Every State society should become an active branch organization, and in that branch organization there should be set apart at each annual meeting an hour, or special order of the day, for the discussion of the affairs of the parent organization, and the payment of a very small fee should entitle all the members to registration as members in fact of the Association. So that at the annual meeting of the American Medical Association there could be announced as so many members belonging to the Maine Branch, so many to the Massachusetts Branch, the Ohio Branch, the Kentucky Branch, and so on alphabetically through the entire roll of states. A certificate of membership of any branch should be sufficient for recognition as a member of the parent association. Certain of the permanent officers of the Association should be delegated to attend the meetings of the state branches for the express purpose of creating an active interest in the organization. There and then could be shown the inestimable value of collective investigations. The treasury of the Association would warrant the inauguration of a system of scientific research that would pertain to the welfare of the entire human family. No man can in any great degree comprehend the possible good that may in this manner be accomplished.

While the number in attendance at the annual meetings of the Association might not be very greatly increased, there is no doubt but that the greatest good would grow out of the cultivation of active work in the branch associations. This work would be summarized for the collective investigation committee, and in this manner the entire body would be benefited.

If some new and better plan than the present can be inaugurated, through the profiting by past experience, by which the usefulness of the American Medical Association will be promoted, the loss of those records may eventuate in good to the entire medical profession of America.

THE following clipping in relation to the last meeting of the Association is taken from the *Medical Standard:*

> The recent meeting of the American Medical Association demonstrated the fact that in holding its sessions on the border lines of the country the Association does not pursue a wise policy.
>
> The American Medical Association should in fact as well as in name represent the profession of the *whole* country. To ask delegates and members to traverse the entire breadth of the continent, and at the same time provide no reduced rates for transportation, is equivalent to inviting the members to stay at home.
>
> The *Medical Standard* believes that the National Association should represent the best element and the best thought of the profession in every part of the country; that it should speak with authority upon every subject relating to the welfare of medicine in its broadest sense; that its sessions should be devoted to the consideration of those topics which are of vital importance not only to the profession, but to the community at large; that it should have the intelligent and hearty support of every reputable member of the profession in the United States.

With such an association American medicine would stand the peer of any profession in any country.

But the fact cannot be overlooked that in the past the American Medical Association has been anything but an ideal national association.

While the *Medical Standard* yields to no man in its reverence for age, and for the noble men who have done so much to elevate the profession in America, yet it believes that the infusion of young blood and new life would invigorate the "old association" to such an extent as to make its life worth preserving.

The "fathers" of the Association have done well the task they set themselves, and the firm rule and iron hand which have so long been characteristic of the Association's management were no doubt necessary in the bygone times when charlatans bloomed as a rose and the integrity of the Association was assailed on every hand. But the times have changed. Star chamber government is no longer necessary. The power of the autocrat in medicine has ceased to exist. The scientific men of today do not appreciate "gag rule," even though it be sugar coated. The progressive spirit of American medicine demands that liberal ideas and liberal action shall dominate over the narrow and bigoted ideas of a past decade. Whatever stands in the way of this restless, pushing, vigorous, liberal sentiment which animates the great mass of the medical profession today, must bow to the inevitable and take rank with past superstitions. Science, not dogma, must rule. Let the American Medical Association look well to her laurels and see to it that in the ceaseless march of progress, in her devotion to the codes, isms, and pathies which have so long been her chief source of delight, she is not pushed aside as a once read novel for the greater attraction of liberal scientific medicine.

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations. Leonard Freeman, M.D.,
J. C. Oliver, M.D.,
Otis L. Cameron, M.D.,
F. O. Marsh, M.D.,
Curators and Microscopists.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending July 6, 1889.

Ward.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	...	..	...	..	...	..	...
2nd	5	..	...	..	...	..	...	1	...	..	...
3rd	3	1	...	..	...	..	...	..	...		...
4th	6	..	1	1	...	..	2	1	...	..	...
5th	2	1	...	..	...	..	...	..	...	..	...
6th	4	..	...	..	...	..	...	..	...	..	...
7th	6	1	1	..	...	..	3	..	...	..	...
8th	4	..	...	..	...	..	...	..	...	..	...
9th	1	..	...	..	...	..	1	1	...	..	..
10th	1	..	...	..	...	..	...	..	...	..	...
11th	9	1	...	..	...	..	1	..	...	..	...
12th	4	..	1	..	...	..	2	..	...	..	...
13th	12	..	...	..	...	..	...	..	...	..	...
14th	2	..	...	..	...	..	1	1	...	..	...
15th	1	1	...	..	...	..	1	..	...	..	...
16th	1	..	...	..	...	..	1	..	...	..	...
17th	2	..	...	..	...	..	...	..	...	..	...
18th	9	..	...	..	...	..	1	1	...	..	...
19th	5	1	...	..	...	..	1	..	...	..	...
20th	5	..	1	..	...	..	...	..	...	..	...
21st	10	2	..	..	...	..	...	..	...	..	...
22nd	...	..	...	..	...	..	2	..	...	..	...
23rd	1	1	..	..	...	..	1	..	...	..	...
24th	4	..	...	..	...	..	...	..	...	1	...
25th	2	..	...	..	...	..	...	..	...	..	...
26th	...	..	...	..	...	..	...	..	...	..	...
27th	...	..	...	..	...	..	...	..	...	..	...
28th	3	..	...	..	...	..	...	1	...	..	...
29th	3	..	...	..	...	..	...	..	...	..	...
30th	4	..	...	..	...	..	1	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	..	...
Other public inst'ns	...	..	...	..	...	..	...	..	...	..	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	109	9	4	1	...	..	18	6	...	1	...
Last week	110	13	3	..	5	..	25	8	...	1	1

The following is the mortality report for the week ending July 6, 1889.

Alcoholism	1
Cholera Infantum	12
Cerebro-spinal Meningitis	3
Diarrhœa	8
Dysentery	2
Entero-Colitis	3
Other Zymotic Diseases	23—52
Cancer	1
Phthisis Pulmonalis	18
Other Constitutional Diseases	8—27
Apoplexy	2
Bright's Disease	2

Bronchitis	2	
Convulsions	11	
Heart Disease	5	
Liver Disease	2	
Peritonitis	1	
Pneumonia	4	
Other Local Diseases	23	52
Old Age	3	
Premature Birth	6	
Other Developmental Diseases	5	14
Accidental	4	
Suicidal	2	6

Deaths from all Causes	151
Annual death rate per 1000	24.16
Deaths for corresponding week in 1888	141
Deaths for corresponding week in 1887	161

Byron Stanton, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 52 observers (embracing 40 counties) show the following diseases to prevail for the week ending Friday noon, July 5, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Diarrhœa	33	98
Cholera Morbus	23	47
Bronchitis, acute	22	48
Tonsillitis	15	17
Intermittent Fever	14	36
Erysipelas	13	15
Remittent Fever	12	27
Cholera Infantum	11	23
Dysentery	11	18
Consumption (Pul.)	11	13
Pneumonia	11	13
Rheumatism (acute)	9	13
Whooping Cough	9	11
Diphtheria	8	15
Measles	7	21
Pleurisy	7	8
Scarlet Fever	5	11
Typhoid Fever	4	4
Typho-Mal. Fever	3	8
Cerebro-Spin. Fever	2	2
Puerperal Fever	0	0
Croup, membranous	0	0

Remarks.

Diphtheria reported by observers at West Liberty, Warren, Holmesville, Zanesville, Maineville, Fidelity, Burton, and Russel. Reported by health officers: Cincinnati, 6 deaths; Columbus, 1 case, 1 death; Toledo, 1 death; Dayton, 1 case; Glendale, 1 case; Youngstown, 2 cases; Middletown, 1 case; Xenia, 1 case; Findlay, 2 cases, 1 death; Delaware, 2 cases.

Scarlet Fever reported by observers Mt. Vernon, Holmesville, Jackson, Dupont, and Plainfield. Reported by health officers: Cincinnati, 1 death; Findlay, 2 cases; Xenia, 1 case; Millersburg, 1 case, 1 death; Flushing, 2 cases; Painesville, 2 cases; Logan, 1 case; Lebanon, 1 case.

Typhoid Fever reported by observers and health officers at seven places.

The report of Asiatic Cholera in Scioto County, Ohio, is false.

C. O. Probst, M.D., Secretary.

Selected.

PRIMARY CANCER OF THE GALL BLADDER AND ITS RELATION TO GALL STONES.

Zenker, in *Deutsches Archiv für klin Med.*

The early symptoms of cancer of the gall bladder are too vague to suggest extirpation of the growth in time for an operation to be of any use. It is only when there is persistent jaundice, with signs of a malignant cachexia, and when a circumscribed tuberculated tumor in the situation of the gall bladder, with the edge of the liver on either side can be felt, that a clinical diagnosis becomes possible. The morbid anatomy, on the other hand, is clear enough. A small mass of scirrhus or medullary cancer may surround the gall bladder, and give rise to numerous metastatic growths in the lungs, liver, and neighboring lymphatic glands. Or the primary growth may form large masses by invading the liver and extending along the lymphatics of the hepato-duodenal ligament. Zenker, however, does not profess to enter on the symptoms or morbid anatomy of primary cancer of the gall bladder, the subject of his paper being the etiology and pathogenesis of the disease.

However we settle the general pathology of cancer, whether we accept Virchow's mechanical irritation or Cohnheim's embryonic theory, or believe in a specific micro-organism, we must have a local predisposition to determine the seat of the disease, and an exciting cause to start the growth. Our author's aim is to show that both these fundamental factors in the development of cancer are accounted for by the presence of gall stones.

All text-books agree in noting the frequent association of gall stones with cancer of the gall bladder. Frerichs, who found them absent only twice in eleven cases, considered the formation of the stones to be due to the cancer. In Erlangen, although gall stones were found 343 times in 4,313 autopsies, only eight cases of primary cancer of the gall bladder have been recorded since 1852. Details of these cases are given. Adding Zenker's cases to those collected by Krauss we have forty-eight cases of primary cancer of the gall bladder. Thirty-eight of these were females, six males, and in four the sex is not given. Gall stones were actually found in forty-one of the cases. In some of the remaining seven cases it is possible that gall stones may have been present but not noted. In others, perhaps, cicatrices and other signs of the former presence and passage of gall stones might have been found if carefully searched for. Be that as it may, it is certain that there were gall stones in at least 85.4 per cent. of all the recorded cases of cancer of the gall bladder.

The proportion—6 to 1—of females to males is very striking. According to Erlangen statistics females are three times as liable to gall stones as males. These results are in favor of gall stones causing cancer, for the proportion of cases in which cancer of the gall bladder occurs to the total cases of gall stones is very small.

The main thing to be proved is that the gall stones were in the gall bladder before the cancer appeared. If this point be established, the almost constant occurrence of gall stones in cancer of the gall bladder will prove Zenker's thesis.

(1) General arguments are not of much value. It may be said that it is easier to understand why gall stones cause cancer than the converse, and again, that it takes a longer time to form a gall stone than the life of a rapidly growing tumor.

(2) Clinical observations support the priority of gall stones. The support, however, is weak, for only three cases, by no means clear or strong, can be cited from the whole of medical literature.

(3) Tough fibrous thickening of the wall of the gall bladder, annular degeneration of its coats at a distance from the growth, shrinking of the entire viscus when the cancer does not tend to contract, and the appearance of the stones, often give the impression that the calculi must be older than the growth. Unfortunately our knowledge of the rate at which gall stones are formed is vaguer even than it is of the time it takes to form a definite amount of cicatricial tissue of a certain degree of toughness. There appears, however, to be more force in the argument that the quantity of bile which fills the gall bladder will not be sufficient to make a gall bladder full of stones, and cases are said to have been met with in which the gall bladder was crammed full of stones, though the cystic duct must have been closed almost as soon as the cancer appeared.

The explanation of how gall stones cause cancer is based on the histology of adeno-carcinomata on the seat of chronic gastric ulcers and their cicatrices. Hauser found that the atypical glandular growth which occurs in cicatrizing gastric ulcers passes by gradual steps into a carcinoma. There are but few glands in the gall bladder, but Zenker gives details of a case in which he found an atypical glandular growth in that viscus. He concludes from this case that an atypical adenoma may be developed in the scars and ulcers caused by gall stones. This constitutes the local predisposition. The chronic irritation due to the continued presence of gall stones is the exciting cause which converts the adenoma into an adeno-carcinoma.—*Medical Chronicle.*

SURGERY OF THE KIDNEY.—Mr. Reginald Harrison makes some practical remarks upon some of the operations affecting the kidney, and classifies them under the headings of — 1. Nephrectomy. 2. Nephrotomy. 3. Digital exploration of the kidney. 4. Nephrolithotomy. 5. Fixation of movable kidney. 6. Exploration of the ureter. Nephrectomy he would apparently confine to cases of destroyed and suppurating kidney, and he does not look with favor on the operation for malignant disease. So far as the mode of operating is concerned, he gives preference to the lumbar over the abdominal incision. Nephrotomy for the evacuation of matter he is warmly in favor of, and considers that the most suitable cases for operation are those where the abscess is limited to one organ and has little or no direct connection with the ureter. He details two interesting cases in which excellent results followed the operation. In suppurative tuberculosis of the kidneys his experience of nephrotomy has not been so favorable, and he would not recommend it unless there was something to indicate with precision the presence of a single abscess not properly discharging itself by the ureter. Where nephrotomy has to be practiced he urges the importance of exploring the upper part of the corresponding ureter by means of a bougie, for a permanently blocked ureter means sooner or later a destroyed kidney which may require removal. He narrates a case of pyonephritis which he incised for the relief of distension-pains, but blood continued to appear in the urine, and this would, he considers, have been more easily traced to its true cause—a papilloma of the bladder—had he carefully explored the ureter at the time of operation and found it patent. Digital exploration of the kidney and its neighborhood he practices as a preliminary to any operative procedures on the kidney, for our means of diagnosis are not too certain. And he narrates a case of severe renal colic where he explored and found nothing, but the patient was cured. Another case by himself, and two others by other surgeons, are referred to where a similar satisfactory result followed the operation without its being explainable. Nephrolithotomy he has performed on three occasions, and in two of these a stone plugging the ureter was removed and relief given. In the third case the operaration was repeated and two small calculi removed on the first occasion, while four large ones were extracted on the second, but the patient died seven hours afterwards. He is almost inclined to think they were formed subsequent to the first operation five months before, but this seems to us hardly probable. The state of the kidney at the post-mortem examination made it a question whether total extirpation of the organ in the first place might not have been advisable. He is inclined to favor in rare cases the fixation of a movable kidney and also the exploration of the ureter from the loin. Mr. Godlee reports an interesting case in the *Practitioner* (vol. xxxix), where a calculus, which had projected from the ureter into the bladder, was forced into the female urethra by manipulation from the vagina.—*London Med. Recorder.*

ACCUMULATION OF POTASSIUM BROMIDE IN THE BRAIN.—The very large use of potassium bromide as a drug given continuously for many years has suggested an inquiry into the extent and the methods of its accumulation in the human body. It is well known that its elimination is slow. If a dose of 20 grains is given to a dog, the greater part has left the body in thirty-six hours, but there are traces left for a month, and it is a special point of interest to notice where those traces are to be found in the body, and also, if possible, in what organs the accumulation takes place. M. Doyon contributes a noteworthy case. A boy, æt. 12, was under hospital treatment for a year for a series of epileptic attacks complicated with acute mania. He was taking during the whole of this time from 60 to 120 grains a day of potassium bromide. In November, 1888, he caught scarlet fever. The fever was not severe, and ran a normal course, but the attacks of epilepsy and mania continued to occur, and in the intervals between those there was profound depression and disinclination to speak or eat. At first the potassium bromide was given up as unsuitable, and indeed perhaps dangerous; but when the convulsions recurred again and again, it was resumed in doses of 60 grains a day. After some days a cough began, which was sometimes very choking; there was no auscultatory sign of pneumonia, but the temperature rose, and he died eighteen days after the onset of scarlet fever. A post-mortem examination showed some patchy congestion of the lungs, with a little pus in the bronchi, and no pathological change in the kidneys or elsewhere, except perhaps that the brain substance was a little tougher than usual. The torpor between the convulsive attacks had been very striking clinically, and his doctors were interested in attempting to trace a connection with the bromide treatment and a possible accumulation of the drug. M. Cazeneuve analyzed the brain, and M. Doyon the liver for comparison. In the brain there was found 30 grains of bromide; in the liver 12 grains. The relative weights of the brain and liver are 15 to 8; and making allowance for this, our conclusion would be that if the percentage in the brain and liver had been the same, when the liver contained 12 grains there would have been 22½ grains in the brain. In this case, however, the brain had 30 grains, and the conclusion M. Doyon wishes to draw is that though the bromide accumulates both in the liver and brain, the accumulation in the brain is the greater.—*The Practitioner.*

TREATMENT OF STOMACH AND BOWEL BY COMPRESSION IN CASES OF CATARRH AND DILATATION.—Dr. Wettendorfer, of Berlin, has been devoting his attention to the application of this method of treatment, and furnishes a number of successful results achieved by the steady compression of the organ. He maintains that compression of a flaccid organ is the rational treatment. If the stomach be greatly dilated, the muscular power of the organ is reduced, and the presence of food will not induce contraction, neither will the secretions for the proper solution of the food be poured out in sufficient quantity to promote the assimilation of the ingesta. There is also another physiological fact that he considers is overlooked in the treatment of the stomach and bowels which he considers of great importance, namely, the widening of the blood vessels of the skin and the stimulating of the nerves by the greater accumulation of blood, which increases the thermic conditions of the integuments and excites the reflex action of the sympathetic system. Professor Nothnagel has recently proved by his experiments that the outer coverings of the stomach and bowels play a very active part in the promotion of alimentation.

He assures us that anti-peristaltic action is nothing more than the effects of this external force, and that the contents of the bowel and stomach are forced in the direction of the least resistance. With this physiological fact in view Wettendorfer is convinced by the number of cases experimented on both by himself and his colleagues that this is the proper treatment. He cites a few cases in proof of this theory, where there was present a complicated condition of tenderness of the gastric region on pressure, dilatation of the organ, catarrhal symptoms, and eczema—trunci chronicum. He treated the eczema with the usual orthodox remedies for that affection, but without success. Baffled in all his efforts, he discussed the scientific difficulty, and finally tried the "Martin Binder" as a tentative remedy. The eczema disappeared like magic, and the other symptoms improved. He was surprised with his first efforts, and repeated the application, which proved equally satisfactory. The uneasy feeling about the stomach after taking a meal soon disappeared; sickness, eructations, and constipation of the bowels with any tenderness on pressure were speedily corrected by the use of the bandage a few hours every day. In cases of weight or oppression in the stomach after a meal, catarrh, dyspepsia, and a sluggish condition of the bowels, the elastic bandage when applied an hour after food will give undoubted relief. The Martin-Binder is an elastic bandage varying from eight to ten inches in breadth. There is one great advantage that will commend itself to the most sceptical, that whatever good we may derive from a trial of the remedy, we may rest satisfied that little harm will accrue, which cannot be said of all the remedies now in vogue for that frequently defaulting organ.—*Med. Press and Circular.*

BAKER ON THE CAUSATION OF PERIODIC FEVER.—The causation of periodic fever has never been established to the satisfaction of the profession. Contributions to its study are ever welcome. Dr. H. B. Baker, the able Secretary of the State Board of Health, has made an extended study of the subject, and, in a reprint from the *Journal of the American Medical Association*, thinks the following points established:

1. Intermittent fever is proportional, directly or inversely, to the average daily range of atmospheric temperature.

2. The controlling cause of intermittent fever is exposure to insidious changes, or changes to which one is unaccustomed, in the atmospheric temperature.

3. In the mechanism of the causation of intermittent fever, the chief factor is the delay in the reaction from exposure to cool air; this delay, extending to a time when greater heat loss should occur, results in the abnormal accumulation of heat in the interior of the body, and in disturbing nervous action—the chill; and the final reaction is excessive because of the accumulation of heat, and sometimes because it occurs at the warmest part of the day.

4. The fever is the excessive reaction from the insidious influence of the exposure to cool air; and it is periodical because of the periodicity of nervous action, and because the exposure and the consequent chill are periodical, owing to the nightly absence of the warmth from the sun.

5. Residence in valleys or on low lands through which or upon which cold air flows at night, and thus causes insidious changes in the atmospheric temperature, favors intermittent fever.

6. In our climate, those measures (such as drainage) which enable the soil to retain the warmth during the night, and thus reduce the daily range of temperature immediately over such soil, tend to decrease intermittent fever among the residents thereon.

7. In the cure and prophylaxis of inter-

mittent fever, those remedies are useful which lessen torpidity and tend to increase the power of the body to react promptly to insidious changes in the atmospheric temperature.

8. The slowness of the pulse, and other indications of torpidity associated with retention of bile or with certain disturbances of the functions of the liver, are well known; but, so far as known to the writer, these conditions have not hitherto been considered as causative of the fever in the manner herein suggested.

A great variety of tabulated data are adduced in support of these propositions. It will be seen that they do not include a micro-organism, though this may accompany the other causes.

Menthol in Laryngeal Tuberculosis.—Drossendowski (*Prager Med. Wochenschr.*) concludes: 1. Menthol seems to act as a good anodyne in this disease. 2. It is of considerable value in the local treatment of laryngeal tuberculosis. 3. To begin with, a solution not stronger than ten per cent. should be used, which may be advantageously increased. Stronger solutions (forty to fifty per cent.) cause severe irritation.—*Med. Standard.*

Trephining of the Pelvis for Suppurative Psoitis.—Dr. Michael Gangolphe of Lyons, (*Revue de Chirurgie*). concludes that infectious and even traumatic psoitis is of exceptional gravity, whether on account of the patient's general condition or of the extent of the local trouble, especially the possibility of the implication of the hip joint; that early evacuation of the pent up pus is the best means of preventing a fatal issue; that trephining of the pelvis, as practiced by him, is easily and rapidly done, is free from danger, and admits of the establishment of perfect drainage of the iliac cavity; and that according to the features of the particular case, it may be associated with one of the classical number, inguino crural, or posterio-crural incisions. The situation that he considers most eligible is a point nearly three finger breadths behind the anterior superior spine. —*Med. Standard.*

PRINTING.—The Lancet-Clinic office receives orders for all kinds of printing.

QUININE IN PULMONARY INFLAMMATIONS.

By F. P. Atkinson, M.D., in the *Practitioner.*

Although the results obtained by the Collective Investigation Committee are not such as might have been expected, considering the amount of energy called forth by it, yet much good has undoubtedly been done by the notice it attracted to certain special points, and more particularly to the great benefit resulting from the use of quinine in various inflammatory conditions of the lungs. But attention has to a certain extent been drawn by these reports, as well as by the regularly conducted experiments of special observers, to the necessity in all cases of looking to the reduction of temperature, rather than of attempting to apply special treatment to the disease itself. The one disease which, though accompanied by high temperature, as a rule benefits little from the use of quinine, is rheumatic fever, though even here salicylate of quinine is often employed with advantage. I wish, however, more particularly to direct attention to the use of quinine in such affections as pneumonia, bronchopneumonia, pleurisy, and whooping-cough. No one can question the fact that the treatment of these diseases has undergone an immense change during the last few years. Most of us can remember when it consisted in ordering a mixture of acetate of ammonium, nitrate of potassium, and antimony, and in leeching, cupping, or blistering. By degrees the use of antimony was abandoned, and poulticing took the place of leeching, cupping, and blistering; and now it looks as if this last, the only remaining portion of the old treatment, were likely to be less resorted to, as cotton-wool is now being employed in the place of linseed meal.

As regards the doses of quinine and the method of its administration, I would say—in each of these before-mentioned diseases give small and oft-repeated doses. For instance, in the case of adults, give three grains dissolved in a little dilute hydrobromic acid every three or four hours. I have given a quarter of a grain to an infant six weeks old every four hours, with very manifest advantage. It should be given either immediately before or after food, otherwise it is apt to cause sickness.

In the case of pneumonia in particular, if there is much headache in the early stages I combine with the quinine three or four minims of the tincture of digitalis. If the skin keeps hot and dry, and the urine is loaded with urates, it is as well to give a little "effervescing citrate of potash," combined with some sweet spirits of nitre, alternately with the quinine; but this should be stopped as soon as diaphoresis occurs. Brandy in tablespoonful doses every four hours is advisable from the start. In the case of pleurisy the combination of morphine is necessary, and the use of a little grey powder often proves very useful. As regards the effects of quinine, it will be found that perspiration occurs after each successive dose, and this no doubt is brought about by its action on the vaso-motor system of nerves. In whooping-cough it perhaps acts antiseptically on the germs, which have their habitat in the upper part of the pharynx. I would say that quinine is a safer antipyretic than antipyrin, antifebrin, or phenacetin, and this naturally produces a bias in its favor. I believe it shortens the duration of pneumonia, and certainly in the case of infants many cases that in old days would have been considered perfectly hopeless now make a good and quick recovery. A friend of mine tells me that since he began the quinine treatment of pneumonia five or six years ago he has not lost a single case, though he has a mixed practice, and thus is not favored with the advantages which some possess. The value of quinine in whooping-cough is most marked, for it undoubtedly controls spasms, and I am inclined to think also shortens the duration of the disease. At any rate, with its use inhalations are entirely unnecessary, and there is never that prostration which in some cases results from the use of bromides and belladonna. Where there is much secretion or any apparent want of nerve-power the combination with it of the syrup of the lactophosphate of lime proves of great service.

In conclusion, I would say that those who can be persuaded to make an extended use of quinine in cases such as have been mentioned will be well satisfied with the results, and no doubt after a little time will be able to throw fresh light upon points in its action that are at present uncertain.

THE ETIOLOGY OF ALBUMINURIA.

By R. B. Davy, M.D., in *South. California Practitioner.*

Though perhaps not as susceptible of easy demonstration as some other, I am satisfied that no part of this important subject is so interesting to us as the study of its cause. A knowledge of the symptoms may enable us to recognize the disease; its pathology will assist us in comprehending the intricate changes which follow each other step by step; the treatment will materially strengthen our efforts to cure and alleviate; but the etiology opens our eyes to possibilities of prevention, and thereby multiplies our usefulness many times. If the old adage that "an ounce of prevention is worth a pound of cure" is true, then a knowledge of the cause of this disease is worth all the other literature on the subject put together, since in this instance, at least, the ability to cure bears no comparison whatever to the ability to prevent. In commencing the study of so important a part of the subject, we must be guided to a great extent by some facts presented in the natural history of the disease. Albuminuria is a disease of particular parts of the temperate zones. Avoiding the extreme cold and violent heat, it pays its respects to localities of moist and changeable climate. It is said to go hand in hand with tuberculosis; it certainly has a closer companionship with scarlatina, diphtheria, etc.

Reflecting upon the known haunts of this disease, we conclude that it owes its existence to some widely extended influence. We are not surprised, therefore, to be informed by the authorities that bad climate is a potent cause. We likewise with satisfaction receive the information that it follows in the wake of scarlatina and diphtheria, diseases largely influenced by climatic conditions. Thus far I dare say we might be led to associate it with the germ theory, were we not assured that certain metallic poisons and strong drink are fertile producers of it. Such reasoning is still further confused by the fact that abnormal conditions of the heart entail similar results. I shall not attempt to demonstrate that each of the many phases of this disease has a separate and special cause. The different forms may or may not be consecutive results of similar influences. In the main, one thing may be relied on as a constant factor, viz., defective circulation of the blood in the kidney; and this, at any rate, forms a part of the proximate cause, whatever variety of circumstance may represent that more remote. Want of equilibrium in the circulation of the kidney is too frequent a condition and capable of being produced by too many diverse circumstances for me to think of attempting to follow it. If, indeed, it were possible to fix upon the true value in this problem of the vaso-motor mechanism of the kidney, we would find ourselves in deep water when we came to deal with the trophic mechanism or that concerned in nutrition.

Writers have not given prominence to this part of the discussion, but have used their energies in classifying causes more or less remote. In order to gain a knowledge which may be of advantage to us in the prevention of the disease, it is quite as important to know how it is caused as well as what causes it. To use the information of the books, we find that the bulk of the albuminuria is caused by such widespread influences as climate, the poison of prevalent diseases, and that absorbed while engaged in the arts or in the indulgence of intemperate habits. That all or any kind of climate is capable of producing the disease in isolated cases, I suppose there is no manner of doubt, but that this most general of all influences, the atmosphere, should prefer certain localities above others, for the infliction of its baneful influence, is a significant fact. It is also as generally understood, that though a large number of diseases have albuminuria as a symptom, a comparatively limited number are accountable for the bulk of it. Though arsenic, mercury, cantharides, etc., are enumerated as exceptional causes, it is not denied that lead is the most serious offender of this class. In the same manner alcohol bears a greater burden of censure than all other cerebral stimulants.

The influence of alcohol predisposes to albuminuria from cold, and climate furnishes a like predisposition through scarlatina, etc. Among the diseases whose burdens fall with great force upon the kidney may be mentioned yellow fever, typhus fever, cholera, small-pox, scarlet fever, typhoid fever, syphilis, diphtheria, rheumatism, measles, etc. The serious ill-effects arising from gout are traced to alcoholic stimuli among the well-to-do, and to lead-poisoning among the poor. The influence pregnancy exerts in the production of albuminuria is believed to be purely mechanical. Venous congestion of the organ is caused by continuous pressure of the uterus and interstitial fibrinous exudation results. In puerperal convulsions, which are almost always preceded by albuminuria, Fordyce Barker states that the blood contains six times the normal amount of urea.

Insufficiency of the heart's action allows the kidney to remain congested, and thus facilitates, though in a more gradual manner, similar changes to those of pregnancy.

As far as these seemingly mechanical causes are concerned, we can understand the method of their action, but the mechanism of taking cold and that of scarlatinal albuminuria must yet remain theoretical. Dickinson tells us ("Albuminuria," p. 83) "that the difference between mild and severe cases is only one in degree. Even in the mildest cases," says he, "the urine contains the characteristic casts and epithelial deposit, and when there occurs an opportunity for examination of the kidney the tubes are found to be obstructed with epithelial growth." If the difference in these cases is only in degree, must not the mechanism by which they are brought about be essentially similar? Dickinson states (p. 111) "that there occurs a deposition of urate of soda, between the tubes, connected with the intertubular fibrous tissue of the gland," and pressure from this assists in destroying the function of the epithelial cells. In the granular kidney, or the condition ascribed to lead, alcohol and interference with the circulation in particular, the growth of intertubal fibrous tissue predominates, being preceded by congestion. The large white kidney being exceptionally produced by alcohol, as lager beer, etc., is the common result of cold and scarlatina. In some locations the influence of climate is joined to that of alcohol; for Christison tells us that in Edinburgh, where the climate is very conducive, four-fifths of the cases of granular degeneration are attributable to intemperance. Dickinson thinks (p. 275) there is no reason to believe that lardaceous disease is ever caused by alcohol.

Climate is the most general of all causes. A limited number of people are exposed to the poisonous absorption of lead and other poisonous substances; by no means does every one use alcohol continuously; and many escape the diseases attended by Bright's disease, from youth to old age; but there is no one who, at some time or other, is not subjected to the vicissitudes of climate. The cause of albuminuria, or that part of it which is ascribed to cold, is a problem which concerns not only the climate in which an individual lives, but also his house, clothing, habits, and idiosyncrasies. Loss of heat from the body at certain unguarded moments would appear to be the first step in this complicated mechanism, but that peculiar state of the nervous system which permits such a result at one time more than another is certainly beyond our knowledge. To prevent this escape of heat at improper times, and maintain the temperature of the body at the normal standard, nature has provided us with the skin and its appendages. The sudoriparous glands, with their watery contents, permit the escape of excess of heat; the sebaceous systems and their oily contents prevent the escape of heat. In climates where it is desirable to reduce the temperature by getting rid of excess of heat we find sudoriparous glands abundant, scarf skin thin and transparent, hairs scarce. The same condition prevails where, on account of a change in the climate from hot to cold, it is desirable that the body absorb heat from without. In climates where the desideratum is to prevent alike radiation from within and absorption from without we find an abundance of hairs, thick and pigmented scarf skin, and few sweat-glands. The character of clothing individuals wear, and the kind of houses they live in, are, in a certain sense, appendages of the skin, and are as much different in different climates as are the skins themselves. The natural conclusion of this study is that the moist climates of the temperate zones are much more trying on the human economy than are the dry climates of the same regions. In the former instance the atmospheric conditions are such as to require a rapid passage of heat outward and inward alternately through the skin; in the latter the interchange is never so great and is carried on much more slowly.

With these reflections in our minds it is not necessary to read the convictions of W. H. Dickinson, "that in whichever direction we leave the temperate range we find albuminuria less common" (p. 286). "It is the compatriot of wheat and barley rather than of the vine and the olive." We can see at once that Great Britain and the Eastern States represent a great field for this disease, and that California, and especially Southern California, represents the nearest approximation to immunity from it.

TREATMENT OF SYCOSIS.—Dr. Jackson, as the result of his experience in the treatment of sycosis, gives the following advice: In acute cases where there is much pustulation, epilate or "curette," and apply boric-acid ointment, or Lassar's paste with salicylic acid. Give one-tenth of a grain of calcium sulphide in fresh tablet triturates every one or two hours. If an acute outbreak of pustules occurs under it, stop it until a subsidence of the eruption takes place, and then begin again. In subacute cases, where there is not so much pustulation but more redness and the disease is more patchy, epilate or curette and use Bronson's ointment (hydrarg. ammon., ℈j; hydrarg. chlor. mitis, ℈ij; vaselin., ℥j.), or one of sulphur, tar or other mild stimulant. Or use soap frictions, followed by protective ointments. In chronic cases, epilate or curette, or apply a solution of caustic potash carefully to the diseased parts. Locally, employ strong ointments or solutions of tar, provided caustic potash has not been used. If caustic potash has been used, then apply a simple soothing dressing. The use of tar in alcohol, as proposed by Pick, of Prague, has of late given brilliant results in his hands in some cases of chronic eczema. Soap frictions are also valuable at this time. As chronic and subacute cases may take on acute forms under stimulating treatment, we must be prepared at any moment to apply more soothing methods of cure according to indication. —*Journal of Cutaneous and Genito-Urinary Diseases.*

NUX VOMICA IN CARDIAC FAILURE.—Dr. A. Bowie reports two cases of cardiac failure in which death seemed imminent, that were speedily relieved by small doses of the tincture of nux vomica every half hour for four doses, then every hour. He considers it the most valuable remedy that we have.—*London Lancet.*

THE USE OF SULPHUR IN VARIOUS DISORDERS OF THE ALIMENTARY CANAL AND LIVER.

[From the *Therapeutic Gazette.*]

In the *Lancet* for April 6, 1889, Sir Alfred B. Garrod states that for many years he has been accustomed to administer sulphur in very small doses for a length of time in the treatment of disorders of the alimentary canal and liver; also in certain diseases of the joints, especially rheumatoid arthritis, and chronic muscular rheumatism and skin diseases. The form in which he administers it is that of a lozenge which contains five grains of the milk of sulphur and one grain of cream of tartar. This lozenge is stated to be quite agreeable to the taste, and contains enough sulphur for therapeutic purposes. He claims that on the alimentary canal sulphur acts as a stimulant to the normal peristaltic movements, and in moderate doses becomes a laxative. It is probably that the stomach itself is little influenced by the sulphur, as the surface and contents of that organ are usually acid in reaction, and possess no solvent power; but when it arrives at the duodenum, and meets with a different condition of the mucous membrane and the presence of bile and pancreatic fluid, both alkaline in reaction, more or less of it becomes converted into a soluble sulphide, which is absorbed by the portal vessels, and passes first through the liver and afterwards into the general circulation by the hepatic vein. From the blood it afterwards becomes eliminated partly by the skin and partly by various mucous membranes. We have good evidence that it is thrown out by the skin in the fact that silver worn close to the surface becomes blackened to some degree when sulphur is taken continuously, and the odor of sulphuretted hydrogen can occasionally be detected in the breath. The presence of the cream of tartar in the lozenge helps to prevent the formation of any soluble sulphide in the stomach, and hence the absence of sulphurous eructations. Any soluble sulphur, however, which reaches the cæcum and colon, where the reaction is again acid, is apt to evolve hydrogen sulphide, and impart odor to the contents of the lower bowel.

As the alimentary canal is influenced partly by the direct action of the sulphur on its mucous membrane, partly by the circulation of the sulphuretted blood through the intestinal capillary system, and partly by the altered and increased flow of bile from the liver, it will be naturally expected that in morbid states of this canal we should be able to detect marked effects from the continued administration of the remedy. Dr. Garrod finds that even this small quantity of sulphur usually produces appreciable laxative effects.

He summarizes the results of his experience with sulphur as follows:

1. The results contained in the present communication were derived from the administration of very small doses of sulphur continued for a lengthened period of time, the doses being much smaller than those hitherto employed, often not exceeding five grains each day, and the time of exhibition much longer, — namely, weeks, months, and in some cases years.

2. A lozenge, named the Compound Sulphur Lozenge, containing five grains of sulphur and one of cream of tartar, was usually prescribed, as being very convenient and by no means unpleasant in taste; and it was found that patients could be readily induced to persevere in using them for an almost indefinite time.

3. The physiological effects of these minute doses of sulphur are observed upon the alimentary canal and the organs connected with it; also on the pulmonary mucous membrane and the skin.

4. Sulphur is not an element foreign to the system, as it is contained in the most important proximate principles of the blood and flesh, and likewise of the bile and saliva.

5. Sulphur given in the manner above described is of great value in many morbid states of the alimentary canal and liver, as in cases of hepatic sluggishness and in piles and hemorrhoidal hemorrhage; besides which the continued use of the lozenges is often quite effectual in obviating habitual constipation without producing the unpleasant action often pertaining to ordinary aperient medicine. The beneficial effect on the bowels has doubtless been the chief cause of the lozenge having become so much liked, so continuously persevered in, and so extensively used.

6. Sulphur in small doses is sometimes useful in affections of the pulmonary mucous membranes.

7. Sulphur has long had a reputation,

and doubtless is of much value, in many diseases of the skin and its appendages.

8. Some arthritic diseases, especially chronic forms of rheumatoid arthritis and gout, and also many cases of muscular rheumatism, are much benefitted by the continued use of small doses of sulphur.

A NEW METHOD OF MAKING OPHTHALMOSCOPIC EXAMINATIONS.—At a recent meeting of the Berlin Medical Society Dr. Bellarminhoff presented a new method of making ophthalmoscopic examinations: When a piece of glass is brought in contact with a cornea which has been anæsthetized with cocaine, and carefully pressed upon it, in consequence of capillary attraction, the glass and the cornea form together a surface which removes more or less the corneal curvature, so that the eye becomes hypermetropic; and the strongly divergent rays emanating from its surface can easily fall on the eye of the observer. The pupil is dilated and the eye examined by daylight with a plain mirror; the fundus of the eye is illuminated and can be seen with both eyes in the direct image at the usual reading distance. The fundus can also be seen by two or three persons standing near by. The magnifying of the image is not great, but an increased field of vision is gained.

The advantages claimed for this method of examination are:

1. It can be used even by those inexperienced in the use of the ophthalmoscope.
2. The possibility of an examination of the fundus by two or three observers at one time.
3. It is thought that it would be of use in examining the anterior structures of the eye.
4. It will facilitate the examination of the eyes of children, of the sick confined to bed, the insane and of animals.

Dr. Schweiger has convinced himself that the method of Bellarminhoff is easily accomplished.

Prof. Hirschberg claims in the *Berliner Klinische Wochenschrift*, that a similar method was proposed by him in the year 1882. He has studied refraction of rays in a living pike, having covered the pupillary portion of the cornea with water and then placed upon it a glass cover.

In the same year (1882) he showed by this method that the fundus of the eye of a horse can be seen in daylight without previous dilation of the pupil.—*Canada Med. Record.*

A CASE OF TRIPLE PRIMARY AMPUTATION.—RECOVERY.

By F. A. HEATH, in *The Medical Chronicle.*

Recovery after injuries so severe as those sustained in the following case is so unusual that the result in this instance appears worthy of a permanent record. The notes were taken by the dresser, Mr. R. E. Lord.

J. T. H., aged 13, an errand boy, was crossing the lines at London Road Station, Manchester, on May 21st, 1888, when he was struck down by an engine, which appears to have passed over some of his limbs. He was immediately brought to the Manchester Infirmary, where he was admitted suffering severely from shock and with crushes of both feet and the left hand, as well as an extensive scalp wound.

Some two hours later he was examined on the operating table, the A. C. E. mixture being first administered. The left ankle was completely crushed, a large part of the heel and sole torn away, and the anterior part of the foot so smashed that the plantar aspect was turned to the dorsum. Crushing and bruising of the leg extended to the junction of its lower and middle thirds. The anterior portion of the right foot was also crushed, but the ankle joint had escaped injury, as had the tissues of the sole, to within an inch of the roots of the toes. The tissues of the left hand and lower part of the forearm were completely smashed. The scalp wound, six inches long, extended in a curved line from above and behind the right ear to a little above and in front of the left parietal eminence. The aponeurosis of the skull was stripped off along this line for a distance of some five inches in width.

Mr. Heath amputated the left leg above its middle, employing the method of skin flaps, with circular division of the muscles. On the right side, Mr. Milner, Resident Surgical Officer, performed Pirogoff's operation with an opening in the heel flap for drainage. At the same time Mr. Heath also amputated the left forearm above its center by the same method as that used for the left leg. The scalp wound was cleaned and sutured.

Shock was very severe, and there was troublesome vomiting after the anæsthetic. Every two hours five drops of Battley's liq. op. sed. was administered with half an ounce of brandy, but the stomach would not retain these. At 11 p.m. he had an enema of two ounces of milk, six drachms of brandy, and five drops of Battley's solution, which was retained. The evening temperature was 100.2°. Two hours later the enema was repeated, and after about 2 a.m. on May 22d the sickness ceased. Hereafter the treatment consisted in the administration of frequent small quantities of milk, brandy, and opium, with beef jelly after the second day.

The temperature never rose beyond 103°, which level it reached on the fourth day. The wounds progressed satisfactorily throughout. On the fifth night there was a little delirium and headache, which soon passed away again. Opium was given nightly until June 1st, after which it was no longer required.

On June 21st he was sent to the Convalescent Hospital at Cheadle, the general health being very good and all the wounds perfectly healthy, the stumps of the left leg and the forearm being completely healed.

At the present date, May, 1889, a year after the operation, the lad is in perfect health; the stumps remain sound, he has artificial limbs, can walk five miles, and intends to follow the occupation of a clerk.

DR. KLEIN ON DISEASED MEAT AND INFECTIOUS DISEASE.—Dr. Klein has addressed a long letter to the Editor of the *Glasgow Herald*, which appeared in that journal on May 27, in answer to a request for his opinion on the questions raised by the recent articles published by the *Herald* on tubercular disease and unsound meat. Dr. Klein states his opinions with great force and clearness. He points out that tuberculosis in cattle and in man is the same disease, in spite of slight differences in minor details, and that it is a disease communicable by inoculation and ingestion. He refers to the demonstrations of Professor McFadyean and others, that the tubercle bacillus is voided in the milk of cows with tubercular deposits in the mammary glands, and believes the dangers of infection of children in this way must be very great. This offers an explanation of the numerous cases of acute miliary tuberculosis in children, not derived from tubercular parents, and not possessed of any hereditary taint. Referring to the distribution of the tubercle in the body, in many cases, to so many distant organs, he points out that the only possible conclusion is that the agent of distribution is the circulating blood, and that, therefore, no part of an animal in which even a single organ is visibly affected with tubercle can be held free of the tubercular virus, and that there is danger to the consumer of any part of the flesh of the animal. Dr. Klein also points out the risks involved to man by other diseases of cattle, especially actinomycosis and foot-and-mouth disease. While nothing is yet known regarding the direct transmission to human beings of other infectious diseases of cattle, such as pleuropneumonia, cattle plague, puerperal septicæmia, he questions the advisability of permitting the meat of such animals to be sold and eaten, because of the toxic substance produced by microbes in the circulating blood, which, while they may not be capable of infecting a person eating of the flesh of the animal, may yet not be harmless. He refers also to the Hendon disease in support of his views. Dr. Klein remarks that it is singular that, centuries ago, the Jewish rabbis seemed more alive to the dangerous role that the meat of diseased animals plays in causing disease than our rules appear to be, notwithstanding scientific discoveries and exact experimental evidence. Amongst the diseases described in their code as rendering an animal unclean and unfit for consumption, none is more clearly described than the disease we nowadays call tuberculosis in cattle and poultry.—*British Med. Journal.*

A FORMULA OF QUININE FOR SUBCUTANEOUS INJECTION.—Buermann, after experimenting in order to find a formula for the hypodermatic injection of quinine that would cause no pain, nor provoke local irritation, has shown the following to be free from these undesirable effects:

By dissolving twenty parts of the muriate of quinine in one part of pure hydrochloric acid and fifteen parts of water he obtains a neutral salt. The solution is filtered, and each syringeful contains fifty cgs. of quinine chloride. He has made upward of one hundred injections with this solution without producing pain or any local irritation whatever. The injections are not followed by the unpleasant symptoms often attending the administration of quinine by the stomach.—*Boston Med. and Surg. Jour.*

Translations.

THE EVIL THAT HAS BEEN SAID OF DOCTORS.

EXTRACTS FROM EARLY GREEK AND LATIN AUTHORS

Collated from "Le Mal qu'on a dit des Medecins," of Dr. S. J. Witkoski.

Translated with annotations by T. C. Minor, M.D.

POPULAR FRENCH ANECDOTES REFLECTING AGAINST DOCTORS.(¹)

PIERRE CHIRRAC (French surgeon, 1650 to 1732).

Chirrac once heard a priest proclaiming on the subject of the resuscitation of Lazarus from the dead, remarked: "If he had been my patient they could not have raised him."—*Choix d'Anecdotes.*

Chirrac was attacked with apoplexy. Several of his medical friends were called to his assistance, and bled him repeatedly. Chirrac, after partially returning to consciousness, became delirious again, and believed himself to be at a patient's bedside. His right hand seized his left wrist and felt the pulse. Then he cried: "I have been called in too late. You doctors have bled this man when he should have been purged. Fatal error! He is dying!" and soon after expired.

* * *

ANDRE JOSEPH PANCKOUCKE (1700 to 1753).

Falconet was one day called to a lady suffering from an imaginary complaint. On being questioned, she admitted that she ate, drank and slept well and had all the apparent signs of health. "Never mind, madam," remarked the Doctor, "I will give you a remedy that will remove all these complaints."

On the death of the celebrated Bœrhaave, they found among his effects a book that was said to contain all the secrets of medical art worth knowing. Those who bought this treasure, on opening the work found a volume of white paper leaves, perfectly blank except on one rine, where was written this apothegm: "Keep your head cool, your bowels open, your feet warm, and you will mock the doctors."

The physician Du Moulin said to several of his *confreres* who stood around his bedside deploring his fate: "Gentlemen, I leave only three eminent physicians behind me." Believing he was about to name them out of compliment, the doctors stood filled with pride, when he continued: "These three are eminently successful practitioners I leave behind me; Water, Exercise, and Diet." — *Dictionnaire des Anecdotes.*

Crebillon the tragedien, had a troublesome malady several years before achieving his success in his "Catalina," and his physician, Hermont, one day asked him to present him the first two acts. Crebillon only answered him by repeating the verse:

> "Ah! should one inherit from him he assassinates."
>
> —*Galerie de l'Ancienne Cour.*

* * *

JEAN FRANCOIS MAMONTEL (1723 to 1799).

Malouin imagined I was taking his lavements and infusions. This I did not do, and at the end of the usual period the malady disappeared. Malouin rejoiced in what he considered a glorious cure. I did not attempt to restrain his triumph by undeceiving him. "Ah! my friend," said he, "you think there is nothing in medicine and the knowledge of doctors." I answered him that I was a strong believer. "I do not think so," he responded, "inasmuch as you sometimes speak of the profession slightingly." Whereat I retorted, "But think of Moliere?" Then closing his fists in wrath he looked me with fixed eyes and exclaimed in wrath, "Yes, but he's dead, too!"

On another occasion Dr. Malouin was visited by a celebrated philosopher who had taken one prescription for four years and recovered. When he had made this astonishing statement, Malouin cried out in a voice of profound admiration, "Embrace me, my friend, you are worthy of being one of my patients."

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[1] These are from notes collected from time to time by the translator.

SEBASTIEN NICHOLAS CHAMFORT (French satirist, 1741 to 1794).

We all know what familiarity the King of Prussia permitted to his immediate friends. General Quintius Icilius was one of those who profited most by this liberty. The King, before the battle of Rosbach, remarked that if he lost the day he would go back to Venice, where he had formerly lived, and there practice medicine. When Quinton responded, "Always in the killing business, eh?"

One day the King said to his physician, "Tell me truly, doctor, how many men have you slaughtered during your life?" And the physician answered promptly, "Almost three hundred thousand *less* than you, Sire!"

Dr. J. operated on one of his clients and cut off the leg. A relative of the victim took the surgeon to one side and said, "Do you think, Doctor, that our friend will recover?" To which the medical scientist replied, "I never had the slightest hope of such a good ending." And the indignant relative thereat exclaimed, "Why make him suffer, then? Why in the Devil operate on a person given over for lost?" Then said the surgeon calmly, "Oh, it is necessary to humor patients a little!"

* * *

VICOMPTE DE LAUNAY (Nineteenth century).

Gerard de Nerval had been locked up, a little too soon, as insane, and when released and asked, "What disease have you had?" he replied, "A hot fever, complicated with doctors!"

Madam X. every day received, between the hours of two and three, her physician, Dr. Z., a most entertaining conversationalist and amiable gentleman. One day Dr. Z. called, according to custom, and was not received. He ordered the servant to announce his name again, and the valet brought back the answer, "Madam is sick to-day and does not desire to see a doctor."

Cardinal Richelieu, fearing himself about to die, pressed his physicians to tell him truly what they thought of his condition and how much longer he might live. All replied that a life so precious to the world should interest the aid of Heaven, and that God would make a miracle and cure him. The Cardinal was not satisfied with these flatterers, but sent for blunt and honest old Dr. Chicot, physician to the King, and implored the latter to tell him the truth. "In twenty-four hours," said Dr. Chicot, "you will be dead or cured." The Cardinal was satisfied, and died in twenty-four hours.

A physician once asked Father Bourdalone what he did to enjoy such good health, and the priest responded that he ate only one meal a day and took no medicine. "Keep the secret," cried the doctor, "for if you make it public you will ruin the profession."

SOME EXTRACTS FROM ENGLISH WRITERS.(1)

SHAKESPEARE (1564 to 1616).

Throw physic to the dogs; I'll none of it.
—*Macbeth.*

Take physic, pomp;
Expose thyself to feel as others feel
—*Macbeth.*

* * *

ROBERT BURTON (1576 to 1639).

Anatomy of Melancholy.

OF PHYSIC WHICH CURETH WITH MEDICINES.

Paulus Jovius, in his description of Britain, and Levinus Lemnius observe as much of this, our island, that there was of old no use of physic among us and but little at this day, except it be for a few nice idle citizens, surfeiting courtiers and stall-fed gentlemen lubbers. The country people use kitchen physic, and common experience tells us that they live freest from all manner of infirmities that make least use of apothecaries' physic. Some think physicians kill as many as they save, and who can tell "How many murders they make in a year?" *Quibus impune licet hominem occidere*, "that many kill folk and have a reward for it;" and, according to the old Dutch proverb, "a new physician must have a new church-yard," and

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1 These few extracts by English writers are added by the translator, and include only the commonly quoted lines familiar to the average American medical reader.

who daily observes it not? Many that did ill under physicians' hands have happily escaped when they have been given over by them, left to God and Nature and themselves; 'twas Pliny's dilemma of old. "Every disease is either curable or incurable, a man recovers of it or is killed by it; both ways physic is to be rejected. If it be deadly, it cannot be cured; if it be helped, it requires no physician, Nature will expel it of itself." It is no art at all, as some hold, no; not worthy the name of a liberal science, as Pet and Canohnius, a patrician of Rome and a great doctor himself "one of their own tribe" proves by sixteen arguments, because it is mercenary as now used, base and as fiddlers play for a reward. *Juridicis, medicis, fisco fas vivere rapto*, 'tis a corrupt trade, no science, art, no profession; the beginning, practice and profession of it, all is nought, full of imposture, uncertainty, and doth generally more harm than good. The Devil himself was the first inventor it; "*Inventum est medicina meum*," said Apollo, and what was Apollo but the Devil? The Greeks first made an art of it, and they were all deluded by Apollo's sons, priests, oracles. Æsculapius, his son, had temples erected to his deity, and did many famous cures; but, as Lactantius holds, he was a magician, a mere impostor. The Arabians received medicine from the Greeks, and so the Latins, adding new precepts and medicines of their own, but so imperfect still, that through ignorance of professors, impostors, mountebanks, empirics, disagreeing of sectaries (which are as many almost as there be diseases), envy, covetousness and the like, they do much harm among us.

They are so different in their consultations, prescriptions, mistaking many times the party's constitution, disease, and causes of it, they give quite contrary physic. "One sayeth this, another that," out of singularity or opposition. As he said of Adrian, *multitudo medicorum principem interfecit*, "a multitude of physicians hath killed the Emperor;" *plus a medico quam a morbo periculi*, "more danger there is from the physician than from the disease."

Besides, there is much imposture and malice among them. "All arts," sayeth Cardan, "admit of cozening, physic, among the rest doth appropriate it to herself," and tells a story of one Curtius, a physician in Venice; because he was a stranger, and practiced amongst them, the rest of the physicians did still cross him in all his precepts. If he prescribed hot medicines, they would prescribe cold, *miscentes pro calidis frigida pro purgantibus astringenta*, binders for purgatives, *omnia perturbatant*. If the party miscarried, *Curtium damnabant*, Curtius killed him, that disagreed from them; if he recovered, then they cured him themselves.

But it is their ignorance that does more harm than rashness; their art is wholly conjectural, if it be an art, uncertain, imperfect, and got by killing of men; they are a kind of butchers, slayers, leeches; chirurgeons and apothecaries especially are indeed the physician's hangmen, *carnifices*, and common executioners; though, to say truth, physicians themselves come not far behind; for, according to that facete epigram of Maximilianus Urentius, what's the difference?

> Chirurgus medico quo differt? Scilicet isto,
> Enecat hic succis, enecat ille manu;
> Carnifice hoc ambo tantum differre videntur
> Tardius hi faciunt, quod facit ille cito.

Or, as rendered by Burton, "How does the surgeon differ from the doctor? In this respect: one kills by drugs, the other by the hand; both only differ from the hangman in this way: they do slowly what he does in an instant."

The most rational and skillful of them are so often deceived, that, as Tholosanus infers, "I had rather believe and commit myself to a mere empiric than to a mere doctor." It was Xenophon who told Cyrus that, to his thinking, physicians "were like tailors and cobblers, the one mended our bodies and the other our clothes." But I will urge these cavilling and contumelious arguments no further, lest some physician should mistake me and deny me physic when I am sick; for my part, I am well persuaded of physic; I can distinguish the abuse from the use, in this and many other arts and sciences; *aliud vinum, aliud ebrietas*, wine and drunkenness are two distinct things.

* * *

JOHN DRYDEN (1531 to 1701).

> Better to hunt in field for health unbought
> Than fee the doctor for a nauseous draught.
> The wise for cure on exercise depend—
> God never made his work for men to mend.

GEORGE HERBERT (1593 to 1632).

After death the Doctor.
—*Jacula Prudentum.*

* * *

MILTON (1608 to 1674).

Budge doctors of the stoic fur.
—*Comus.*

* * *

TOM BROWN(1) (1663 to 1704).

I do not love thee, Doctor Fell.
The reason why I cannot tell.
But this alone I know full well,
I do not love thee, Doctor Fell.

* * *

JOHN GAY (1688 to 1732).

"Is there hope?" the sick man said.
The silent doctor shook his head.
—*The Sick Man and the Angel.*

* * *

POPE (1688 to 1744).

Who shall decide when doctors disagree,
And soundest casuists doubt, like you and me.
—*Moral Essays.*

* * *

GEORGE COLMAN (1762 to 1836).

But when ill indeed,
E'en dismissing the doctor don't always succeed.
—*Lodgings for Single Gentlemen.*

[THE END.]

Opium as a Hæmostatic.—A case of severe bronchial hæmorrhage came to the notice of Dr. Huchard which, in spite of most active treatment, had continued for some time. He used ergot, injections of ergotine, sulphate of quinine, ipecac, and other remedies without avail. Finally he tried injections of morphine four or five times daily in ½ grain doses. The hæmorrhages ceased entirely after the first day of treatment. Dr. Huchard has since tried the drug in uterine hæmorrhages and too copious menstruation, always with marked success.—*Med. News.*

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1 Non amo te, Sabidi, nec possum dicere quare;
Hoc tantum possum dicere, non amo te.
—Martial, Epigram I, 33.

Je ne vous aime pas, Hylas;
Je n'en saurois dire la cause.
Je seulement une chose,
C'est que je ne vous aime pos.
—Bussy, Compte de Rabutin, Book I.

Champagne ANALYZED

Of Interest to all Medical Practitioners.

WHAT IS SAID BY
THOMAS KING CHAMBERS, M.D., F.R.C.P.
R. OGDEN DOREMUS, M.D.
F. W. PAVY, M.D., F.R.S.

"Champagne, with a minimum of alcohol, is by far the wholesomest, and possesses remarkable exhilarating power."—THOMAS KING CHAMBERS, M.D., F.R.C.P.

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"Champagne, while only possessing the alcoholic strength of natural wines, is useful for exciting the flagging powers in case of exhaustion."—F. W. PAVY, M.D., F.R.S. *Lecturer on Physiology at Guy's Hospital, London.*

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CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, July 20, 1889. *WHOLE VOLUME LXII.*

Addresses.

CONSIDERATIONS CONCERNING SOME EXTERNAL SOURCES OF INFECTION IN THEIR BEARING ON PREVENTIVE MEDICINE.

The Address in State Medicine delivered before the American Medical Association at Newport on June 28, 1889,

By William H. Welch, M.D.,
Professor of Pathology in Johns Hopkins University, Baltimore.

No department of medicine has been cultivated in recent years with such zeal and with such fruitful results as that relating to the causes of infectious diseases. The most important of these results for preventive medicine and for the welfare of mankind is the knowledge that a large proportion of the causes of sickness and death are removable.

It is evident that efforts to preserve health will be most intelligently and effectually applied when they are based upon an accurate and full knowledge of the agencies which cause disease. Public and private hygiene, however, can not and, fortunately, has not waited for the full light of that day, whose dawn has only begun to appear, when we shall have a clear insight into the causation of preventable diseases. Cleanliness and comfort demand that means shall be taken to render pure the ground on which we live, the air which we breathe, and the water and food with which we are supplied, and we must meet these needs without waiting to learn just what relation infectious agents bear to the earth, air, water, and food.

It is a fortunate circumstance that modern sanitation has been controlled so largely by the belief in the dependence of endemic and epidemic diseases upon organic impurities in the soil and in the water. Incomplete and even erroneous in many respects as are the views which have prevailed concerning the origin and spread of epidemic diseases by the decomposition of organic substances, the sanitary measures which have been directed toward the removal of filth have achieved great conquests in limiting the development and extension of many infectious diseases. The benefits which one Commonwealth of this country has derived from the intelligent employment of public sanitary measures were clearly and forcibly presented before this Association last year by Dr. Walcott, in his admirable address in State Medicine.

While nothing should be said or need be said to lessen the importance of cleanliness for public health, it is important to bear in mind that hygienic cleanliness and æsthetic cleanliness are not identical. In water which meets the most severe chemical tests of purity, typhoid bacilli have been found. On the other hand, the air in the Berlin sewers, which certainly does not meet the most modest demands of æsthetic cleanliness, has been found to be nearly or quite free from bacteria.

It needs only to be stated to be generally admitted that the scientific basis of preventive medicine must be the accurate knowledge of the causative agents of preventable diseases, a knowledge which can be derived only from a careful study of all the properties of these agents, the modes of their reception and of their elimination by the body, the circumstances which favor and those which retard or prevent their development and spread, their behavior in the various substances which surround us or which we take into our bodies, and the sources of infection, not only those which laboratory experiments show to be possible, but those which are actually operative.

So long as we were unacquainted with the living organisms causing infection, the means at our disposal for studying the etiology of infectious diseases were limited to the observation of all the circumstances which we could determine regarding the origin and spread of these diseases. We could only infer what might be the properties of the infectious agents from the study of phenomena often obscure and difficult of interpretation. Chiefly by this method of investigation the science of epidemiology has been built up. It has established facts and laws no less of practical than of scientific importance. But it has left unsolved many problems and has filled gaps with speculations. Admitted epidemiological facts are often open to various interpretations.

We are evidently at a great advantage when we can study the epidemiological facts with a knowledge of the substances which actually cause infection, and this we are now enabled to do for a limited number of the infectious diseases. This new method of research, which thus far has been mainly bacteriological, has aided us not so much by simplifying the problems of etiology, which still remain complicated enough, as by affording greater accuracy to the results.

It is my aim in this address to consider some results of the modern studies of pathogenic micro-organisms in their bearing upon preventive medicine, more particularly upon the sources of infection. It is, of course, impossible within the limits of the address to attempt a complete survey of this important field. Time will permit the presentation of only some of the salient points.

Infectious diseases are those which are caused by the multiplication within the body of pathogenic micro-organisms.

It has always been recognized that some infectious diseases, such as the exanthematous fevers, are conveyed directly from the sick to the healthy. It is not disputed that in these evidently contagious diseases the infectious germ is discharged from the body in a state capable at once of giving rise to infection.

In a second group of infectious diseases, of which malaria is the type, the infected individual neither transmits the disease to another person, nor, so far as we know, is capable of infecting a locality. Here there is reason to believe that the infectious germ is not thrown off in a living state from the body, but is destroyed within the body. In this group the origin of infection under natural conditions is always outside of the body.

In a third group there is still dispute whether the disease can be transmitted directly from person to person, but all are agreed that the infected individual can infect a locality. It is especially fortunate that the bacteria which cause cholera and typhoid fever, the two most important representatives of this group of so-called miasmatic-contagious diseases, have been discovered and isolated in pure culture. These are the diseases about whose origin and epidemic extension there has been the greatest controversy. They, above all other diseases, have given the impulse to public sanitation during the last half century. The degree of success with which their extension in a commmunity is prevented is an important gauge of the excellence of the local sanitary arrangements. A clear comprehension of the origin and spread of these diseases signifies the solution of many of the most vexed and important problems of epidemiology and of State hygiene.

It is difficult to understand how those who accept the discovery that the bacteria causing typhoid fever and cholera have been found and cultivated from the stools of patients affected with these diseases can doubt that these patients are possible sources of contagion, or can entertain the view once so widely prevalent that the infectious germs of these diseases are discharged from the body in a condition incapable of producing immediate infection. In an address delivered on another occasion, I have endeavored to present the considerations which reconcile the comparative infrequency of direct contagion for these diseases with the belief in the elimination of the causative germs in an active state from the body, and have there pointed out several well-known factors which determine the frequency of conveyance of an infectious disease by contagion. There are reasons, some of them very obvious, why diseases in which the infectious substances are operative only when received into the digestive tract, and are discharged usually only with the feces, are less likely to be transmitted by immediate contagion than those diseases in which the virus is thrown off from the skin on epidermal scales.

But the field of operation of direct contagion for these so-called miasmatic-contagious diseases is at most a restricted one, and the chief sources of infection are outside of the body from which primarily the infectious germs may have been derived. It is to these external sources of infection, which are of such importance in public hygiene, that I wish especially to direct attention.

A full comprehension of the sources of infection is, of course, to be obtained only by a detailed study of the etiology of the individual infectious diseases, but this is impossible within the limits of an address. It may, however, be useful to present some of the facts which have a general bearing upon the subject. Let us consider, then, from the point of view of modern bacteriological studies, what *role*, in harboring or in transporting infectious agents, may be played by those substances or media with which we necessarily come into intimate contact, such as the air, the ground, the water, and our food.

It is universally admitted that many infectious agents may be transported by the air, but the extent of danger from this source has often been exaggerated. It is a popular error to suppose that most of the minute particles of dust in the air either are or contain living organisms. The methods for determining the number and kind of bacteria and fungi in the air are now fairly satisfactory, although by no means perfect. These have shown that while the number of living bacteria and fungi in the atmosphere in and around human habitations cannot be considered small, still it is greatly inferior to that in the ground or in most waters. Unlike fungus spores, bacteria do not seem to occur to any extent in the air as single detached particles, which would then necessarily be extremely minute, but rather in clumps or attached to particles of dust of relatively large size.

As a result, in a perfectly quiet atmosphere these comparatively heavy particles which contain bacteria rapidly settle to the ground or upon underlying objects, and are easily filtered out by passing the air through porous substances, such as cotton-wool or sand. Rain washes down a large number of bacteria from the air.

That the air bacteria are derived from the ground, or objects upon it, is shown by their total absence, as a rule, from sea air at a distance from land, this distance naturally varying with the direction and strength of the wind.

A fact of capital importance in understanding the relations of bacteria to the air, and one of great significance for preventive medicine, is the impossibility of currents of air detaching bacteria from moist surfaces. Substances containing pathogenic bacteria, as, for instance, sputum containing tubercle bacilli or excreta holding typhoid bacilli, cannot, therefore, infect the air unless these substances first become dry and converted into a fine powder. We are able to understand why the expired breath is free from bacteria and cannot convey infection, except as little particles may be mechanically detached by acts of coughing, sneezing, or hawking. Those bacteria, the vitality of which is rapidly destroyed by complete desiccation, such as those of Asiatic cholera, evidently are not likely to be transported as infectious agents by the air, if we except such occasional occurrences as their conveyance for a short distance in spray.

The only pathogenic bacteria which hitherto have been found in the air are the pus organisms, including the streptococcus found by Prudden in a series of cases of diphtheria, and tubercle bacilli; but no far-reaching conclusions can be drawn from the failure to find other infectious organisms when we consider the imperfection of our methods and the small number of observations directed to this point. The evidence in other ways is conclusive that many infectious agents—and here the malarial germ should be prominently mentioned—can be and often are conveyed by air. While we are inclined to restrict within narrower limits than has been customary the danger of infection through the air, we must recognize that this still remains an important source of infection for many diseases. All those, however, who have worked practically with the cultivation of micro-organisms have come to regard contact with infected substances as more dangerous than exposure to the air, and the same lesson may be learned from the methods which modern surgeons have found best adapted to prevent the infection of wounds with the cosmopolitan bacteria which cause suppuration.

We are not, of course, to suppose that infectious germs floating in the form of dust in the atmosphere are dangerous only from the possibility of our drawing them in with the breath. Such germs may be deposited on substances with which we readily come in contact, or they may fall on articles of food where they may find conditions suitable for their reproduction, which cannot occur when they are suspended in the air in consequence of the lack of moisture.

From the facts which have been mentioned concerning the relations of bacteria to the air, what points of view present themselves to guide us in preventing infection through this channel? Surely something more than that this purpose is accomplished simply by abolishing foul odors.

Certain indications are so plain as to need only to be mentioned in this connection, such as the disinfection and removal, as far as possible, of all infected substances, an indication which applies equally to all channels of infection, and which it is much easier to mention than it is to describe how it shall be realized. But there are two indications which apply especially to the prevention of the transportation of disease germs by the air. One is the necessity of guarding, as far as practicable, against the desiccation, when exposed to the air, of substances which contain infectious germs not destroyed by drying, and another is free ventilation.

For in no disease is the importance of the first of these indications so evident and so well established as for tuberculosis, the most devastating of all infectious diseases. Against this disease, formidable as it may seem to cope with it, the courageous crusade of preventive medicine has begun, and is destined to continue.

It is now generally recognized that the principal, although not the sole, sources of tuberculous infection are the sputum of individuals affected with pulmonary tuberculosis and the milk of tuberculous cows. Cornil, who has made a laborious and most instructive experimental study of the modes and dangers of infection from tuberculous sputum, has also elaborated the practical measures which should be adopted to diminish or annihilate these dangers. These measures have been so recently and so widely published in medical journals, and so clearly presented before a section of this Assciation, that I mention them only to call the attention of practitioners of medicine to their importance, and to emphasize the fact that infectious substances of such nature as tuberculous sputum should not be allowed to become dry and converted into dust when exposed to the air.

By means of free ventilation, disease-producing micro-organisms which may be present in the air of rooms are carried away and distributed so far apart that the chance of infection from this source is removed or reduced to a minimum. It is a well-established clinical observation that the distance through which the specific microbes of such diseases as smallpox or scarlatina are likely to be carried from the patient by the air, in such concentration as to cause infection, is small, usually not more than a few feet, but increases by crowding of patients and absence of free ventilation. The well-known experiences in the prophylaxis and treatment of typhus fever are a forcible illustration of the value of free ventilation.

It is, of course, not to be understood that by ventilation we accomplish the disinfection of a house or apartment. Ventilation is only an adjunct of such disinfection, which, as already mentioned, is of first importance. Time will not permit, nor is it in the plan of this address, to discuss the details of such questions as house disinfection, but I may be permitted to say that the methods for disinfecting apartments have been worked out on a satisfactory experimental basis and should be known at least by all public health officers. Whether it be pertinent to this occasion or not, I cannot forbear to add my protest to that of others against placing reliance upon any method hitherto employed of disinfecting houses or apartments by fumigation. And I would, furthermore, call attention to the lack in most cities of this country of public disinfecting establishments such as are in use with excellent results in many cities of Europe, and which are indispensable for the thorough and convenient disinfection of clothing, bedding, carpets, curtains, etc.

After this short digression let us pass from the consideration of the air as a carrier of infection to another important external source of infection, namely, the ground. That the prevalence of many infectious diseases depends upon conditions pertaining to the soil cannot be questioned, but the nature and extent of this influence have been and are the subjects of lively discussion. The epidemiological school led by Pettenkofer assigns, as is well known, to the ground the chief and even a specific and indispensable influence in the spread of many epidemic diseases, particularly cholera and typhoid fever. The statistics, studies, and speculations of epidemiologists which have related to this subject probably surpass in number and extent those concerning any other epidemiological factor. The exclusive ground hypothesis has become an ingenious and carefully elaborated doctrine with those who believe that such diseases as cholera and typhoid fever can never be transmitted by contagion. These authorities cling to this doctrine with a tenacity which indicates that on it depends the survival of the exclusively localistic dogma for these diseases.

To all who have not held aloof from modern bacteriological investigations it must be clear that views which have widely prevailed concerning the relations of many infectious germs to the soil require revision. The question is still a difficult and perplexing one, but on some hitherto obscure or misunderstood points these investigations have shed light, and from the same source we may expect further important contributions to a comprehension of the relations of the ground to the development of infectious diseases.

The ground, unlike the air, is the resting or the breeding place of a vast number of species of micro-organisms, including some which are pathogenic. Instead of a few bacteria or fungi in a litre as with the air, we find in most specimens of earth thousands, and often hundreds of thousands, of micro-organisms in a cubic centimetre. Fränkel found the virgin soil almost as rich in bacteria and fungi as that around human habitations.

This vast richness in micro-organisms belongs, however, only to the superficial layers of the earth. Where the ground has not been greatly disturbed by human hands there is, as a rule, about three to five feet below the surface an abrupt diminution in the number of living organisms, and at the depth where the sub-soil water usually lies, bacteria and fungi have nearly or entirely disappeared. Fränkel, who first observed this sudden diminution in the number of micro-organisms at a certain level beneath the surface, explains this singular fact by the formation at this level of that sticky accumulation of fine particles consisting largely of bacteria which forms the efficient layer in large sand filters for water. Of course, the number of bacteria and the depth to which they penetrate will vary somewhat with the character, especially the porosity, of the soil and its treatment, but the important fact that all, or nearly all, of the bacteria and fungi are retained in the ground above the level of the sub-soil water will doubtless hold true for most situations.

The conditions are not favorable for the multiplication of bacteria in the depth of the ground, as is shown by the fact that in specimens of earth brought to the surface from a depth of a few feet, the bacteria which are at first present, rapidly multiply. What all of the conditions are which prevent the reproduction of bacteria in the deep soil has not been ascertained, but the fact necessitates similar precautions in the bacteriological examination of the soil as in that of water.

We have but meagre information as to the kinds of bacteria present in the ground in comparison with their vast number. Many of those which have been isolated and studied in pure culture possess but little interest for us so far as we know. To some of the micro-organisms in the soil appears to be assigned the *role* of reducing or of oxidizing highly organized substances to the simple forms required for the nutrition of plants. We are in the habit of considering so much the injurious bacteria that it is pleasant to comtemplate this beneficent function so essential to the preservation of life on this globe.

Among the pathogenic bacteria which have their natural home in the soil, the most widely distributed are the bacilli of malignant œdema and those of tetanus. I have found some garden earth in Baltimore extremely rich in tetanus bacilli, so that the inoculation of animals in the laboratory with small bits of this earth rarely fails to produce tetanus. In infected localities the anthrax bacillus and in two instances the typhoid bacillus, so far as it was possible to identify it, have been discovered in the earth. There is reason to believe that other germs infectious to human beings may have their abiding place in the ground; certainly no one doubts that the malarial germ lives there. As the malarial germ has been shown to be an organism entirely different from the bacteria and the fungi, we cannot apply directly to its behavior in the soil and its transportation by the air, facts which have been ascertained only for the latter species of micro-organisms, and the same precautions must be observed for other diseases with whose agents of infection we are not acquainted, as, for instance, yellow fever.

In view of the facility with which infectious germs derived from human beings or animals may gain access to the soil, it becomes a matter of great importance to determine how far such germs find in the soil conditions favorable for their preservation or growth. We have, as is well known, a number of epidemiological observations bearing upon this subject, but with few exceptions these can be variously interpreted, and it is not my purpose to discuss them. The more exact bacteriological methods can, of course, be applied only to the comparatively small number of infectious diseases, the causative germs of which have been isolated and cultivated, and these methods hitherto have been applied to this question only imperfectly. We cannot regard the soil as a definite and unvarying substance in its chemical, physical, and biological properties. What has been found true of one kind of soil may not be so of another.

Moreover, we cannot in our experiments bring together all of the conditions in nature which may have a bearing on the behavior of specific micro-organisms in the soil. We must, therefore, be cautious in coming to positive conclusions on this point on the basis of experiments, espepecially those with negative results. With these cautions kept constantly in mind the question, however, is one eminently open to experimental study.

The experiments which have thus far been made to determine the behavior of infectious micro-organisms in the ground have related especially to the bacilli of anthrax, of typhoid fever, and of cholera, and, fortunately, these are the diseases about whose relations to the ground there has been the most discussion and concerning which we are most eager to acquire definite information.

As regards anthrax bacilli, it has been determined that in ordinary garden or field earth they do not multiply, but in earth contaminated by blood, urine, or feces their reproduction can occur. They can grow on various vegetable substrata. There is no reason to doubt, therefore, that the anthrax bacilli can find in or on the ground suitable conditions for their multiplication, although such conditions are not everywhere present. For durable infection of the soil with anthrax bacilli it is, however, more important that these bacilli should find there suitable conditions for the formation of spores, than that they should be able simply to multiply. The vegetative forms of anthrax bacilli would not, as a rule, be able to survive for a great length of time the hostile influences which they are likely to encounter in the ground, such as insufficient or exhausted nutriment, absence of sufficient moisture, and the attacks of saprophytic organisms. On the other hand, against these injurious influences the anthrax spores have great resistance. In the superficial layers of the ground the anthrax bacilli may often find those conditions of moisture, of temperature, of oxygen supply, and of insufficient food which we know are most favorable for the development of their spores; indeed, Soyka has shown that the ground presents often these conditions better than our culture media. A circumstance discovered by Feltz, which, however, needs confirmation, is, if true, of not a little significance. He finds that anthrax bacilli may undergo a progressive diminution in virulence in the soil. If this should be true likewise of other infectious micro-organisms, we should be able to account, in some instances, for the variable degree of virulence which clinical observation indicates that certain agents of infection acquire. So far as anthrax bacilli are concerned we may conclude, therefore, that the ground occasionally offers suitable conditions for their reproduction, but what is of greater importance, it offers especially favorable conditions for their long-continued preservation in the form of spores. I must forego here the further consideration of the special circumstances inherent in the soil which control the origin and spread of epidemics of anthrax in cattle, although many interesting investigations have been directed to this subject.

Of greater interest to physicians is the behavior of typhoid and of cholera bacteria in the ground. As has already been intimated the ground is regarded by Pettenkofer and his school as the principal breeding-place of these micro-organisms outside of the body. This view, however, is not supported by bacteriological investigations. Inasmuch as the cholera and the typhoid bacilli may multiply on various vegetable substrata and substances derived from animals, at temperatures often present in the ground, it is evident that here and there conditions may be present for their growth in the ground, but this growth is likely to be soon interrupted by the invasion of ordinary saprophytic organisms and other harmful influences. The typhoid bacilli are more hardy in resisting these invaders than are the cholera bacteria, which easily succumb; but even for the former, so far as our present knowledge extends, the ground can rarely serve as a favorable breeding-place.

It is not, however, necessary that these organisms should multiply in order to infect for a considerable time the ground; it is sufficient if their vitality is preserved. As to this latter point, the reports of different investigators are not altogether concordant. Such excellent observers as Koch, Kitasato, and Uffelmann found that the cholera bacteria, when added to feces or a mixture of feces and urine, rapidly diminished in number, and at the end of three, or four days at the most, had wholly disappeared. In a mixture of the intestinal contents from a cholera corpse with earth and water Koch found numerous cholera bacteria at the end of three days, but none at the end of five days. On the other hand, Gruber reports the detection of cholera bacteria in cholera dejecta fifteen days old. The weight of bacteriological evidence, therefore, is opposed to the supposition that the bacteria of Asiatic cholera preserve their vitality for any considerable time in the ground or in the excreta.

With respect to the bacilli which cause typhoid fever, it has been shown by Uffelmann that these may live in feces, mixture of feces and urine, and mixture of garden earth, feces, and urine for at least four and five months, and doubtless longer, although they may die at the end of a shorter period. He also finds that under these apparently unfavorable conditions some multiplication of the bacilli may occur, although not to any considerable extent. Grancher and Deschamps found that typhoid bacilli may live in the soil for at least five months and a half. Unlike the cholera bacteria, therefore, the typhoid bacilli may exist for months at least in the ground and in the fecal matter, holding their own against the growth of multitudes of saprophytes. This difference in the behavior of cholera and of typhoid germs is in harmony with clinical experience.

As regards other infectious bacteria than those which have been considered, I shall only mention that tubercle bacilli, although incapable of multiplication under the ordinary conditions of nature outside of the body, may preserve their vitality for a long period in the ground, on account of their resistant character, and, furthermore, that the pyogenic cocci, on account of their considerably resistant nature and their modest demands in the way of nutriment, can be preserved and sometimes probably grow in the ground. Indeed, the staphylococcus pyogenes aureus has been found in the earth by Lübbert.

The conclusion which we may draw from the observations mentioned is that, in general, the soil is not a good breeding-place for most of the infectious bacteria with which we are acquainted, but that it can retain for a long time with unimpaired vitality those which produce spores or which offer considerable resistance to injurious agencies, such as anthrax bacilli, tubercle bacilli, and the pyogenic cocci.

In order to become infected with bacteria in or on the ground, these bacteria must in some way be introduced into the body, and we must, therefore, now attempt to determine how bacteria may be transported to us from the ground. So various and intricate are the possibilities of this transportation that it is hopeless to attempt to specify them all.

There occurs to us first the possibility of the conveyance of infectious micro-organisms from the soil by means of currents of air, a mode of carrying infection which has already been considered. Here I shall only repeat that the wind can remove bacteria from the ground only when the surface is dry and presents particles of dust, and that the sole, and perhaps the chief, danger is not that we may inhale the infected dust.

Manifold are the ways in which we may be brought into contact with infectious bacteria in the ground, either directly or indirectly by means of vegetables to which particles of earth are attached, by the intervention of domestic animals, by the medium of flies or other insects, and in a variety of other ways, more or less apparent.

An important, doubtless for some diseases the most important, medium of transportation of bacteria from an infected soil is the water which we drink or use for domestic purposes. From what has been said, it is evidently not the sub-soil water which is dangerous, for infectious like other bacteria cannot generally reach this in a living state, but the danger is from the surface water and from that which trickles through the upper layers of the ground, as well as from that which escapes from defective drains, gutters, cesspools, privy vaults, and wrongly constructed sewers, or improper disposal of sewage. I shall have something to say presently of water as a source of infection and shall not further elaborate here the dangers of infection of drinking water through contaminated soil, dangers which, especially as regards typhoid fever, are widely appreciated in this country, even if often imperfectly counteracted.

A point which has been much discussed and one of interest, is whether bacteria which are in the depth of the ground can come to the surface. Two agencies especially have been considered by some as capable of transporting bacteria from the depth to the surface. One is ascending currents of air in the ground and the other is the capillarity of fluids in the minute pores of the ground. The first of these suspected agencies must be unquestionably rejected in view of the fact that even a few inches of sand is sufficient to filter all of the bacteria out of the air, even when it is in much more rapid motion than can occur within the ground. Moreover, that degree of dryness which is essential for the detachment of bacteria by air-currents is not likely to be present much below the surface of the ground. The experiments which have been made to determine to what extent bacteria may be carried upward by the capillarity of fluids in the ground have not yielded harmonious results, but the weight of evidence is opposed to the belief that this is a factor of any considerable importance for this purpose.

From what has been said concerning the growth of pathogenic bacteria in the soil we shall not be inclined to attribute to the multiplication and the motility of these organisms much influence in changing their place in the ground.

The somewhat sensational role assigned by Pasteur to earthworms of bringing bacteria to the surface cannot be wholly ignored and has received support from observations of Bollinger regarding anthrax, but it is questionable whether much importance is to be attached to this agency.

Regarding the depth to which typhoid bacilli may penetrate the soil, the experiments of Grancher and Deschamps show that at the end of five weeks they may reach a depth of sixteen to twenty inches below the surface. As Hoffmann has demonstrated the extraordinary slowness with which fluids and fine particles penetrate the soil, it is probable that in the course of time a greater depth than this may be reached. Indeed, Macé claims to have found in soil in the neighborhood of a well, suspected of infection, typhoid bacilli, together with ordinary intestinal bacteria, at a depth of at least six and one-half feet below the surface. There are a number of instances recorded in which there is reason to believe that turning up the soil and cleaning out privies or dung-heaps in which typhoid stools have been thrown, have given rise to typhoid fever, even after the infectious excreta have remained there a year and more.

It can not be said that bacteriological investigations have as yet shed much light upon a factor which plays a great *rôle* in epidemiology, namely, predisposition to infection from the ground according to locality and time, and this deficiency receives constant and vehement emphasis from the localistic school of epidemiologists. We can, however, readily understand that varying conditions, such as temperature, moisture, porosity, quality of soil, may exert a controlling influence in determining the behavior of infectious germs in the soil and the facility of their transportation to human beings or animals. As regards that much-discussed question, the significance of variations in the height of the sub-soil water in relation to the prevalence of certain epidemic diseases, particularly cholera and typhoid fever, we now know that this can not depend upon the presence of bacteria in the sub-soil water itself or in the capillary layers immediately above it. It has been plausibly suggested that with the sinking of the sub-soil water fluids from infected cesspools, privy vaults, and other localities may more readily be drawn into wells or other sources of water supply, and that by the same cause the surface of the ground becomes dry so that dust particles may be lifted by the wind. Other more or less plausible explanations have also been offered, but it must be confessed that our positive information on this point is meagre. There can, however, be little doubt that this significance of the variations in sub-soil water is apparent only for certain localities, and has been considerably exaggerated and often misunderstood. It is not, however, pertinent to my theme to discuss this or other purely epidemiological observations concerning the relations of the ground to the spread of epidemic diseases, interesting and important as are many of these observations.

Before leaving the subject of the ground as a source of infection, permit me to indicate briefly some conclusions which may be drawn from what has been said as to the principles which should guide us in preventing infection directly or indirectly from the ground.

First in importance is to keep infectious substances as far as possible from the ground. This implies the early disinfection or destruction of such substances as typhoid and cholera excreta and tuberculous sputum.

Second. The ground should be rendered as far as practicable unsuitable for the continued existence of infectious germs. This, at least for some diseases, is accomplished by a proper system of drainage, which, moreover, for other reasons possesses hygienic importance.

Third. Means should be provided to prevent waste products from getting into the ground around human habitations or from gaining access to water used for drinking or domestic purposes. In cities this can be accomplished only by a properly constructed system of sewers. The system of storing waste products in cesspools whence they are to be occasionally removed can not be approved on hygienic grounds. There are conditions in which the disposal of waste products in deep wells only used for this purpose and whence these products can filter into the deep layers of the ground may be permissible, but this can never be considered an ideal method of getting rid of excrementitious substances, and is wholly wrong in regions where wells are used for drinking water. But I am trespassing with these remarks upon a province which does not belong to me but rather to practical sanitarians and engineers. I shall only add that the advantage gained by preventing organic waste from soaking into the ground is not so much that the ground is thereby rendered better adapted to the existence of infectious micro-organisms, but is due rather to the fact that this waste is likely to contain infectious germs.

Finally, in cities, good pavements, absence of unnecessary disturbance of the soil, cleanliness of the streets, and laying of dust by sprinkling, are not only conducive to comfort but are sometimes hygienically important in preventing infection from the ground and dust.

In passing from the consideration of the ground to that of water, one feels that he now has to do with a possible source of infection, against which, in this country and in England, he is at liberty to make any accusation he chooses without fear of contradiction. There is reason to believe that such accusation has been repeatedly made without any proof of misdemeanor on the part of the water. It is not, therefore, with any desire to awaken further the medical or the public conscience that I wish to say a few words concerning the behavior of bacteria in water and the dangers of infection from this source. That such dangers are very real, must be apparent when we consider the universal employment of water and its exposure to contamination from all kinds of sources.

Ordinary water, as is well known, contains bacteria in large number. Not a few species of bacteria can multiply rapidly and to a large amount even in distilled water. These are the so-called water-bacteria, and, like most of the micro-organisms found in ordinary drinking-water, are perfectly harmless saprophytes. What we wish to know is, how pathogenic micro-organisms conduct themselves in water. Can they grow or be preserved for any length of time in a living condition in water? As regards the multiplication of pathogenic bacteria in water, the results of different experimenters do not altogether agree. Whereas, Bolton failed to find any growth, but rather a progressive diminution in number of pathogenic bacteria planted in sterilized water, Wolffhügel and Riedel observed a limited reproduction of such bacteria, including those of typhoid fever and of cholera. This difference is due probably to the methods of experimentation employed. According to Kraus, these latter bacteria diminish rapidly in number in unsterilized spring or well water kept at a low temperature. These experiments indicate that water, even when contaminated with more organic impurities than are likely ever to be present in drinking-water, is not a favorable breeding-place for pathogenic bacteria. Still, it is to be remembered that these laboratory experiments do not reproduce exactly all of the conditions in nature, and it may happen that in some nook, or cranny, or vegetable deposit at the side of a well or stream some pathogenic bacteria may find suitable conditions for their multiplication.

But, as has been repeatedly emphasized in this address, it is not necessary that pathogenic bacteria should actually multiply in a medium in order to render it infectious. It is sufficient, if their life and virulence are not destroyed in a very short time. As to this important point, Bolton found that in sterilized water typhoid bacilli may preserve their vitality for over three months, and cholera bacteria for eight to fourteen days, while Wolffhügel and Riedel preserved the latter in water for about eighty days. Under natural conditions, however, these organisms are exposed to the overgrowth of the water bacteria, so that Kraus found in unsterilized water kept at a temperature of 10.5° C. (50.9° F.), the typhoid bacilli no longer demonstrable after seven days, and the cholera bacteria after two days. The conditions in Kraus's experiments were as unfavorable as possible for the continued existence of these pathogenic bacteria, more unfavorable than those often present at the season of prevalence of cholera and typhoid fever; nevertheless, I do not see that the experimental results justify the conclusions of Kraus as to the slight probability of drinking-water ever conveying infection with the germs of typhoid fever and of cholera. To render such a conclusion probable it would be necessary to demonstrate a much shorter preservation than even Kraus himself found. In judging this question it should not be overlooked that infection of drinking-water with the typhoid or the cholera germs is not so often the result of throwing typhoid or cholera stools directly into the source of water supply, as it is the consequence of leaky drains, cesspools, privy-vaults, or infected soil, so that there may be continued or repeated accessions of infected material to the water.

In view of the facts presented, there is no sufficient reason, therefore, from a bacteriological point of view, of rejecting the transmissibility of typhoid fever and cholera by the medium of the drinking-water. This conclusion seems irresistible when we call to mind that Koch once found the cholera bacteria in large numbers in the water of a tank in India, and that the typhoid bacilli have been repeatedly found in drinking-water of localities where typhoid fever existed. Nor do I see how it is possible to interpret certain epidemiological facts in any other way than by assuming that these diseases can be contracted from infected drinking-water, although I know that there are still high authorities who obstinately refuse to accept this interpretation of the facts.

In this connection it may be mentioned that pathogenic bacteria may preserve their vitality longer in ice than in unsterilized drinking-water. Thus, Prudden found typhoid bacilli still alive which had been contained in ice for one hundred and three days.

When we come to consider the ways in which water may become infected with pathogenic micro-organisms, we recognize at once a distinction, in this respect, between surface water and sub-soil water. Whereas the sub-soil water may be regarded under ordinary circumstances and in most places as germ-free, the surface water, such as that in rivers and streams, is exposed to all manner of infection from the ground, the air, and the direct admission of waste substances. Unfortunately, in the ordinary way of obtaining sub-soil water for drinking purposes, by means of dug wells, this distinction is obliterated, for the water which enters these wells free from bacteria is converted into a surface water often exposed, by the situation of the well, to more dangerous contamination than other surface waters used for drinking purposes.

Now let us turn our attention, as we have done with other sources of infection, to a brief outline of certain general principles which may help us in avoiding infection from the water.

We shall, in the first place, avoid as far as possible the use of water suspected of infection, especially with the germs of such diseases as typhoid fever and cholera. When it is necessary to use this suspected water it should be boiled.

Pepsin in Infantile Diarrhœa.

Statistics show that the mortality rate of infantile diarrhœa, as it manifests itself in the summer months, is higher than that of any other disease.

Unhygienic conditions and improper nourishment, aggravated by high temperature, are the chief causes assigned for the prevalence of this disorder. How to effectually remove or overcome these causes is a question of the gravest importance to sanitarians and physicians. It must be admitted, however, that these conditions, for a large portion of infantile humanity, must continue to exist, and consequently the problem presented to physicians is how to cure the disease, in spite of unfavorable conditions, when it has firmly established itself. The solution of this question often taxes the ingenuity and medical skill of the attendant in vain.

How shall the conditions present best be met? To answer this query has inspired exhaustive contributions from the pens of our most learned medical writers. It is admitted by all that one of the causes which incites and perpetuates the gastric and intestinal inflammation is undigested, or partly digested, fermenting milk or other food, the decomposition of which is accompanied by the development of ptomaines and other toxic principles. It is as an aid to the removal of this cause, both in predigesting milk or other food before it is given, and in digesting fermented undigested food in the stomach, that pepsin is indicated in infantile diarrhœa, and its efficacy has been attested by many well known medical writers. (See *J. Lewis Smith, M. D., Archives of Pediatrics, Sept., '86, p. 518; Nov., '86, p. 639; Nov., 1864, p. 424. Prof. Vocker, of Berlin Archiv. f. Kinderk, vol. 9, p. 3, Dr. I. N. Love, St. Louis Weekly Medical Review, Aug., '88. T. Louder Brunton, Diseases of Digestion, p. 291. A. Holt, N. Y. Archiv. Pediatrics, 1886, p. 732. A. G. Bigelow, Archiv. Pedia rics, 1884, p. 430. Discussion at German Medical Cangress, at Salzburg, 1881, by Demme, Biedert, Gerhardt, Henoch, Steffen, Thomas, Soltman, Pfeiffer. Prof. Leeds, Archiv. Ped. 1864, p. 421, etc.*

With the improvements that have of late been made in the purity, quality and digestive efficacy of Pepsin, this agent is likely to play a more important and definite part in the treatment of intestinal inflammations than ever before. Its ease of administration, its certainty of action when a proper product is administered, will, we believe, lead to its extensive use.

We say *proper product*, advisedly, for it is well known that many pepsin products are absolutely inert or of very low digestive power, or infested with chemical poisons (leucomaines and ptomaines—see Vaughan and Novy's Ptomaines and Leucomaines), the disagreeable odor they possess being significant of putrefaction.

It goes without saying that a product of the latter type would only augment the inflamation, and physicians should look well to the character of the pepsin used. It should, in the first place, be absolutely devoid of the odor characteristic of putrefying mucus, and in the second place, it should freely dissolve in water at all temperatures, for, as solubility is one of the distinguishing peculiarities of the unorganized ferments, it is the best evidence of purity in a pepsin.

We guarantee the purity, activity and solubility of our pepsin products. Our pepsin is absolutely free from odor, and has been shown by expert examination to be free from ptomaines and leucomaines, and demonstrated by an exhaustive comparative test to possess twice the digestive power of the most active hitherto introduced. (See Observations on Digestive Ferments, by R. H. Chittenden, Ph. D., *Phila. Medical News*, February 16, 1889.

In raising the standard of digestive strength by our investigations, we have adopted 1 to 2,000, forty times that required by the last pharmacopœia, believing this strength would best meet practical requirements. We are, however, prepared to supply pepsins of almost any strength up to a product capable of dissolving 6,000 times its weight of albumin.

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It is not probable that the pharmacopœia will ever adopt a standard for pepsin higher than that which we now observe, and it will only be by recognizing this authority that the term "pepsin" can ever come to mean a preparation of definite digestive strength. As it now is, unless some particular brand is specified, a pharmacist is justified in putting up the most worthless products on his prescriptions.

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Morphinæ Sulphas 1-4 grain.
44 Duboisinæ Hydrochlor. 1-100 grain,
Morphinæ Sulphas 1-8 grain.
45 Hyoscyaminæ Sulphas 1-60 grain.
46 Hyoscyaminæ Sulphas 1-100 grain.
47 Hyoscyaminæ Sulphas 1-60 grain.
Morphinæ Sulphas 1-4 grain.
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50 Picrotoxini 1-80 grain.
Strych. Sulph. 1-80 grain.
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53 Coninæ Hydrobrom. 1-100 grain.
Morphinæ Sulphas 1-6 grain.
54 Curarinæ Sulphas 1-60 grain.
55 Curarinæ Sulphas 1-80 grain.
56 Curarinæ Sulphas 1-100 grain.
57 Eserinæ Sulph. 1-60 grain.
58 Eserinæ Sulph. 1-80 grain.
59 Eserinæ Sulph. 1-100 grain.
60 Eserinæ Sulph. 1-100 grain.
Morphinæ Sulph. 1-6 grain.
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63 Caffeinæ 1-2 grain.
64 Caffeinæ 1 grain.
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66 Quin. Carbam. Mur. 2 grains.
67 Quin. Carbam. Mur. 3 grains.
68 Hyoscin Hydrobrom. 1-100 grain.
69 Hyoscin Hydrobrom. 1-50 grain.
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As regards the vital question of water supply, it may be stated as a general principle that no hygienic guarantee can be given for the purity of surface water which has not been subjected to a proper system of filtration, or for the purity of spring or well water fed from the sub-soil unless such water is protected from the possibility of infection through the upper layers of the soil or from the air. This is not saying that water which meets certain chemical and biological tests, and which is so situated that the opportunities for its contamination appear to be absent or reduced to a minimum, is not admissible for the supply of drinking-water, but the possibility of infection can be removed only by the fulfilment of the conditions just named, and upon these conditions the hygienic purist will always insist.

Unfortunately, we have at present no domestic filters which are satisfactory, and most of those in common use are worse than none, as they soon furnish a filtrate richer in bacteria than the original water. The only effective method of water-filtration for the general supply is by means of large sand filters, such as are in use with excellent results in Berlin and some other cities. These require skilled attention. I cannot on this occasion discuss the construction or working of these filters, but would refer those who are interested to the full and careful investigations of the Berlin filters by Wolffhügel and by Plagge and Proskaur.

What is accomplished by these artificial sand filters is accomplished under natural conditions also by the ground, which furnishes a sub-soil water free from microorganisms, and to obtain pure water we have only to devise means by which this sub-soil water may be secured without the chance of contamination. Just as the water, which has passed through the sand filters, is collected in suitable reservoirs and is distributed in pipes, which do not admit contamination from without, so by means of properly constructed artesian or driven wells we may secure the naturally filtered sub-soil water with the same freedom from the chances of infection.

It is well to bear in mind that no biological or chemical tests of water can replace those measures which have been mentioned as necessary to secure purity of water supply. These tests are of value only when applied with proper precautions and with due consideration of the special circumstances of each case for which they are employed.

There has been much profitless discussion as to whether greater significance is to be attached to the chemical or to the bacteriological examination of water. Each has its own special field of application, and in this the one cannot replace the other method. The bacteriological examination has for hygienic purposes the advantage that it may enable us to detect the specific agents of infection in the form of microorganisms, as has already been done for cholera bacteria and typhoid bacilli, but this is a comparatively rare result and does not at present afford a wide field of application for this method. The significance of the bacteriological test is to be based more frequently upon the fact that it concerns itself with the same class of microorganisms to which some of the recognized and doubtless many of the undiscovered infectious agents belong, and from the behavior of which in some respects conclusions can be drawn as to the behavior of the pathogenic organisms. Thus the bacteriological test is the only one which enables us to judge correctly of the efficacy of those methods of filtration of surface water and of construction of wells which insure purity of water supply. The points of view from which we can estimate correctly, according to our present knowledge, the relative merits and fields of application of the chemical and of the bacteriological methods of water examination have been clearly indicated by Plagge and Proskauer and by Wolffhügel. The field is one beyond the limits or the scope of this discourse, and I have referred to it chiefly to emphasize the fact that we cannot rely upon chemical or bacteriological tests of water to the exclusion of those protective measures which have been mentioned, although I do not intend to imply that each of these tests, when properly employed, does not afford important information and is not of great value in many cases.

I have already taxed so largely your time and patience that I must pass over with brief mention the food as a source of infection. Unlike those external sources of infection, which we have hitherto considered, many articles of food afford an excellent nutritive medium for the growth of a number of species of pathogenic micro-organisms, and in many instances this growth may be abundant without appreciable change in the appearance or taste of the food.

When we consider in how large degree the certainty and the severity of infection with many kinds of pathogenic micro-organisms depend upon the number of such organisms received into the body, we can appreciate that the danger of infection from food which contains a mass of growing pathogenic bacteria may be much greater than that resulting from the reception of infected water or air, media in which infectious organisms are rarely present in other than a very dilute condition. The entrance into the body of a single infectious bacterium with the inspired air is, at least in the case of many diseases, not likely to cause infection; but let this bacterium fall upon some article of food, as, for instance, upon milk, where it can multiply in a short time at a favorable temperature many thousand fold, and evidently the chances of infection become vastly increased.

Among the various agencies by which infectious organisms may gain access to the food may be mentioned the deposition of dust conveyed by the air, earth adhering to vegetables, water used in mixing with or in the preparation of food, in cleansing dishes, cloths, etc., and contact in manifold other ways with infected substances.

Fortunately, a very large part of our food is sterilized in the process of cooking shortly before it is partaken, so that the danger of infection from this source is greatly diminished and comes into consideration only for uncooked or partly cooked food and for food which, although it may have been thoroughly sterilized by heat, is allowed to stand considerable time before it is used. Milk, in consequence of its extensive employment in an unsterilized state and of the excellent nutritive conditions which it presents to many pathogenic bacteria, should be emphasized as especially liable to convey certain kinds of infection—a fact supported not less by bacteriological than by clinical observations. Hesse found that also a large number of ordinary articles of food prepared in the kitchen in the usual way for the table and then sterilized afford a good medium for the growth and preservation of typhoid and cholera bacteria, frequently without appreciable change in the appearance of the food.

Upon solid articles of food bacteria may multiply in separate colonies, so that it may readily happen that only one or two of those who partake of the food eat the infected part, whereas with infected liquids, such as milk, the infection is more likely to be transmitted to a larger number of those who are exposed.

In another important particular the food differs from the other sources of infection which we have considered. Not only the growth of infectious bacteria, but also that of bacteria incapable of multiplication within the body, may give rise in milk and other kinds of food to various ptomaines, products of fermentation, and other injurious substances, which, when ingested, are likely to cause more or less severe intoxication, or to render the alimentary tract more susceptible to the invasion and multiplication of genuinely infectious organisms.

It is plain that the liability to infection from food will vary according to locality and season. In some places and among some races the proportion of uncooked food used is much greater than in other places and among other races. In general, in summer and in autumn the quantity of fruit and food ingested in the raw state is greater than at other seasons, and during the summer and autumn there is also greater danger from the transportation of disease germs from the ground in the form of dust and the amount of liquids imbibed is greater. The elements of predisposition according to place and time upon which epidemiologists are so fond of laying stress are not, therefore, absent from the source of infection now under consideration.

I have thus far spoken only of the secondary infection of food by pathogenic micro-organisms, but, as is well known, the substances used for food may be primarily infected.

Chief in importance in this latter category are the various entozoa and other parasites which infest animals slaughtered for food. The dangers to mankind resulting from the diseases of animals form a separate theme which would require more time and space than this address affords for their proper consideration. I shall content myself on this occasion with only a brief reference to infection from the milk and flesh of tuberculous cattle.

It has been abundantly demonstrated by numerous experiments that the milk from tuberculous cows is capable, when ingested, of causing tuberculosis. The milk may be infectious not only in cases in which the udder is tuberculous, but also when the tuberculous process is localized elsewhere. How serious is the danger may be seen from the statistics of Bollinger, who found with cows affected with extensive tuberculosis the milk infectious in eighty per cent. of the cases, in cows with moderate tuberculosis the milk infectious in sixty-six per cent. of the cases, and in cows with slight tuberculosis the milk infectious in thirty-three per cent. of the cases. Dilution of the infected milk with other milk or with water diminished or in sufficient degree it removed the dangers of infection. There is reason to believe that many of the so-called scrofulous affections in children are due to infection from milk derived from tuberculous cows. Probably for adults the danger of acquiring tuberculosis from the use of infected milk is relatively small. Bollinger estimates that at least five per cent. of the cows are tuberculous. From statistics furnished me by Mr. A. W. Clement, V.S., it appears that the number of tuberculous cows in Baltimore which are slaughtered is not less than three to four per cent. Among some breeds of cows tuberculosis is known to be much more prevalent than this.

There is no evidence that the meat of tuberculous cattle contains tubercle bacilli in sufficient number to convey infection, unless it be very exceptionally. Nevertheless, one will not willingly consume meat from an animal known to be tuberculous. This instinctive repugnance, as well as the possibility of post-mortem infection of the meat in dressing the animal, seem good grounds for discarding such meat. The question, however, as to the rejection of meat of tuberculous animals has important economic bearings, and has not been satisfactorily settled. As to the propriety of the rejection of the milk from such animals, a matter, however, not easily controlled, there can be no difference of opinion.

The practical measures to adopt in order to avoid infection from the food are for the most part sufficiently obvious. Still, it is not to be expected that every possibility of infection from this source will be avoided. The pleasure of living would be destroyed if one had his mind constantly upon escaping possible dangers of infection. It is difficult to discuss the matters considered in this address without seeming to pose as an alarmist. But it is the superficial and half knowledge of these subjects which is most likely to exaggerate the dangers and awaken unreasonable fears. While one will not, under ordinary circumstances, refrain from eating raw fruit or food which is palatable, although it may not have been thoroughly sterilized by heat, or from using the natural water unboiled, in the fear that he may swallow typhoid or cholera bacteria, still in a locality infected with typhoid fever or cholera he will, if wise, not allow himself the same freedom in these respects. Cow's milk, unless its source can be carefully controlled, when used as an habitual article of diet, as with infants, should be boiled or the mixed milk of a number of cows should be selected; but this latter precaution offers less protection than the former.

In most places in this country we are sadly lacking in good sanitary inspection of the food, especially of the animal food, offered for sale. One cannot visit the admirable slaughter-house in Berlin or that in Munich, and doubtless similar ones are to be found elsewhere, and watch the intelligent and skilled inspection of the slaughtered animals without being impressed with our deficiency in this respect. In large cities an essential condition for the efficient sanitary inspection of animal food is that there should be only a few places, and preferably only one place, where animals are permitted to be slaughtered. Well-trained veterinarians should be selected for much of the work of inspection.

It may reasonably be asked that the National Government, which has already spent so much money for the extermination of such diseases as pleuro-pneumonia of cattle and hog cholera, which are not known to endanger the health of mankind, should turn some of its resources and energies also to means for the eradication of tuberculosis from cattle, which is a scourge not only to the economic interests of farmers and dairymen, but also to the health of human beings.

Without any pretension to having done more in this address than to sketch here and there a few principles derived from bacteriological researches concerning only some of the most widely distributed external sources of infection, I trust that enough has been said to show the folly of any exclusive dogma as to modes of infection. The ways of infection, even in one and the same disease, are manifold and various, and can never be resolved into exclusive hypotheses, such as the drinking-water hypothesis, the ground hypothesis, etc.

It follows, therefore, that it is not by sanitary improvements in one direction only that we can control the spread of preventable epidemic diseases. In one situation improvements in the supply of drinking-water check the prevalence of typhoid fever, in another place similar measures show no such influence; or again, in one city the introduction of a good system of sewerage diminishes epidemic diseases, and in another no similar result follows. We should, therefore, aim to secure as far as possible good sanitary arrangements in all directions and in all respects.

It has also been rendered evident in what has been said that infectious agents differ markedly from each other in their behavior, so that while public sanitation aims at those measures which are found to be most widely beneficial, it should not forget that each infectious disease is as much a separate problem in its prophylaxis, as in its symptomatology, etiology, and treatment. It will not aim to combat cholera with the means found best suited to scarlet fever, but it will adapt preventive measures as directly to the specific end in view as possible.

In presenting to you the results of researches, chiefly bacteriological, concerning the scientific basis of preventive medicine, I hope to escape the accusation of one-sidedness and narrowness by the statement that I do not for a moment intend to imply that the bacteriological method is our only source of accurate knowledge on the subjects which have been considered. My aim is accomplished if I have succeeded in making clear that this method has established facts which aid in a clearer conception of the causes of some important infectious diseases, in a better understanding of the sources and dangers of infection, and in a more efficient selection and application of sanitary measures.

If this science of only a few years' growth has furnished already acquisitions to knowledge so important, so far-reaching, may we not look forward with assurance to the solution of many dark problems in the domain of infectious diseases, problems the solution of which may yield to preventive medicine a future of usefulness and success which we cannot now foresee?

VIBRATION IN CYCLING.—That there are dangers associated with indulgence in cycling exercise as at present conducted there can be little doubt, the many accidents in this connection recorded from time to time affording sufficient evidence of the fact. Apart, however, from the risk of accidents from falls, imperfect machinery, and want of skill in riding, there is a danger of a subtler kind to be apprehended, and which Dr. B. W. Richardson describes in the *Asclepiad* under the heading given above. He instances his own experience in illustration of the theory that in cycles as at present constructed the rider is subjected to a continuous succession of spinal shocks, the effect of which is to produce a weariness of body and a nerve prostration which may very well have serious results. In the early days of cycling the old "bone-shaker" was undoubtedly the cause of much more considerable mischief in this connection than attends the employment of the greatly improved tricycles and bicycles that now issue from the manufactories, but even the most perfect machines in present use do not answer to the full requirements that Dr. Richardson desiderates. Our author describes a number of the constructive adaptations hitherto resorted to for securing the object in view, and concludes his remarks on the subject by observing that "there is no reason why resilient wheels should not be used in combination with the other methods until such a perfect machine is invented that a thoroughly rigid frame shall sustain a set of bearings for the rider that shall cut off vibration from every point of his body that comes in contact with them, and yet interrupt in no way the complete application of propelling power." And until this consummation is reached cycling cannot be considered as being free from the risk of spinal and nervous injury.—*Med. Press and Circular.*

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Original Articles.

CYSTIC TUMORS.

A REPORT OF THREE CASES.

A Paper read at a meeting of the Miami Medical Society, Loveland, O., May 7, 1889,

By Wm. Scott, M.D.,
Secretary.

[Published by request of the Society.]

CYSTIC TUMOR OF THE NECK.

In June, 1886, I was consulted in regard to a trouble on the neck of a little girl seven years old. I found an enlargement about the size of a filbert situated two inches below the angle of the lower jaw, in the region of the lower lymphatics. The history was one of tubercular disease amongst the child's ancestors, and this trouble was supposed to be enlarged lymphatics from scrofula. Constitutional treatment alone was prescribed. I was out of the State for some time afterwards and did not see the case again for six weeks. The tumor had steadily increased in size, and was now as large as a hulled walnut, freely movable, and not sensititive or painful when manipulated. I made an explorative puncture with a hypodermic needle, which passed readily until the tumor was reached, when a membrane or sac was struck which seemed as tough as leather, and considerable pressure was made before the needle passed through. The contents withdrawn consisted of a watery, milky fluid. The case was without doubt a cervical cystic tumor, and its removal was advised. The mother could not readily come to a conclusion, and during the following ten days, whilst she was meditating, the sac ruptured at the point where I had inserted the needle and between one and two ounces of thick whitish fluid escaped. Iodine locally and syr. trifolim. comp. internally was prescribed. I did not see the case again for a long time; perhaps a year had passed when she was again brought to my office. I was told that the sac had, in the meantime, filled three times, and as many times had it ruptured and discharged its contents. It was plain to be seen that the general health was being undermined. The girl was pale and nervous; she had been obliged to quit school and her studies. The tumor was again as large as a hulled walnut. The mother was now anxious to have the tumor removed, but on account of the adhesions that had formed and on account of the impaired physical condition of the little girl, I did not think an operation advisable. I decided to try the treatment recommended by Billroth and by Dr. Rogers, of New York, which consisted of injecting into the tumor sulph. ether, to which five per cent. of iodoform had been incorporated. I could not, on that special evening, procure the iodoform, and concluded to inject the ether alone, using thirty drops with a hypodermic syringe. The little girl complained considerably of heat and pain in the tumor for about five minutes; after that time she was comfortable. The injection was only made once, and over a year has since elapsed; the growth of the tumor was arrested and it has gradually diminished, until now it is scarcely perceptible. The general health of the little girl is excellent. She has not missed a day from school this winter. The only internal remedies that have been used has been the comp. syr. trifolim. I do not wish to be understood as attempting to establish this treatment on the results of the trial in one case, but simply report the case as one of the peculiar episodes of a physician's life.

CYST OF THE ABDOMINAL WALLS.

Three years ago, just as the Society was ready to adjourn, I gave a very brief report of this case, and ask those who were present then to pardon my repetition. Unfortunately, I lost my notes of this case, and had to resort to a recent interview with my patient in order to collect the main features of the case.

In January, 1885, Mrs. C., aged 40, saw her little son handling a loaded gun; she ran to take it from him, and in the act the gun was discharged. The butt end of such a weapon seldom does any harm; the victim of the "didn't know it was loaded" is generally at the muzzle of the gun, but in this case the gun, which was loosely held, kicked violently and struck the lady just over the pit of the stomach. There was some pain and general symptoms of neuralgia of the stomach for several weeks. In March, or a little over two months after the injury, an enlargement about the size of the fist was noticed immediately over the lesser curvature of the stomach. This gradually enlarged, until at the end of another month it measured thirteen inches in length by four inches across. It was shaped something like a stocking, and was placed diagonally across the abdomen, the upper extremity being just beneath the left mammary gland, while the lower portion, which resembled the foot of the stocking, reached to within four inches of the tip of the hip bone. In April the sac was tapped and about ten pints of thin, almost colorless fluid escaped. In three weeks the sac was as large as before. The contents were again removed and one ounce of tincture of iodine injected. This was followed by an intense peritonitis, which kept the patient confined to her bed for over two weeks and demonstrated that the inner wall of the sac of the tumor was in close connection with the peritoneum. In course of time the sac again filled, was again tapped, and fl. ext. ergot injected. In three days it again filled; again removed the fluid and used carbolic acid as an injection, but the secreting power of the sac was not lessened. A drainage-tube was inserted the entire length of the tumor. This soon had to be abandoned, because it was certain that with the enormous amount of fluid discharged the life of the patient would soon drain away. Up to this time the tumor had been tapped fourteen times, and between nine and ten gallons of fluid had been removed, not counting the quantity that passed through the drainage-tube. I now concluded to try the effects of an astringent and a caustic together, and made a solution of tincture of iodine, to which was added all the tannin that the tincture would take up. In June, three months after the tumor was first tapped, I again removed the contents of the tumor and injected two ounces of this mixture, closed the opening, and manipulated the walls of the sac until I was certain every portion had been acted on. This ended the career of this troublesome case. No unfavorable symptoms followed the treatment, the sac never again filled, and the general health of the patient improved, until to-day, four years afterwards, she is rosy and robust, the very picture of health, and no sign of her former trouble remains.

From my present experience with Listerine I believe it would have been *the* remedy in this case, but at that time it had not come into general use.

My especial object in relating this case is to call attention to the peculiar arrest of menstruation. Heretofore this lady had always been prompt and regular in her periods. When the tumor appeared menstruation ceased, and remained absent for over four months. When the tumor was cured menstruation was voluntarily again established, and has not once since failed to appear promptly each month.

FIBROID CYST OF THE UTERUS.

There certainly is nothing complimentary, encouraging or gratifying to report in this case. I briefly allude to it order to point out the moral.

On December 8, 1886, I first saw a young unmarried woman, aged 27, and was given the following history: Five months previous to my first visit menstruation, which up to this time had always been regular, suddenly ceased; at the same time there appeared a derangement of the digestion, and a characteristic morning sickness. In course of time a tumor was noticed, which first appeared in the median line just above the pubes. This tumor continued to increase in size, until at the end of five months, when I first saw the case, the highest portion of the tumor had almost reached the umbilicus. It was movable from side to side and filled the abdominal cavity, except the inguinal regions, which did not appear to contain anything abnormal. The young lady had a slight malarial fever, and whilst treating this I gained time to study my case. After recovery from the malarial complication had occurred, I made a thorough examination of the case. A sound introduced into the uterus gave a measurement of the cavity of five and one-half inches—an abnormal increase in length of over two and one-half inches; no great increase laterally. The uterus was immovable. Leaving the sound in the uterine cavity and manipulating the tumor, it was noticed that the sound moved at the same time. If the tumor was pressed to the right, the handle of the sound would incline to the left, and *vice versa.* The cervix and vagina presented nothing abnormal. A diagnosis of a fibroid cyst, attached to the uterus by a broad base, was made. The case was examined several times by an eminent gynecologist and the diagnosis confirmed. An operation for the removal o the growth was suggested, but declined b the young lady and her parents unless ne risk and a successful result could be positively promised. As there was a great probability that the uterus would have to be removed with the tumor, no such promise could be given. The tumor increased in size until respiration was embarrassed from the pressure. The aspirator was used several times and enough of the contents of the sac removed to make the patient comfortable. The fluid finally became so thick and adhesive that it was impossible to remove it with the largest needle of the aspirator. The young lady lived until February 29, 1888, or one year and two months after I first saw the case. One week before she died the walls of the abdomen and the tumor gave way an inch below the umbilicus, and a common wooden bucketful of fluid escaped.

I know it is almost an impossibility to differentiate between an ovarian cyst and a uterine fibroid cyst, but every point that could possibly aid in diagnosis was carefully followed, and there was no evidence that the ovaries in this case were diseased. Yet absence of menstruation was one of the first symptoms noticed, and during the whole course of the disease the menses never once appeared. Owing to an unintentional blunder on the part of a friend of the family no post-mortem was held.

Shortly after this case had died, Dr. George French, of Minnesota, published the history of a number of cases, both of ovarian and fibroid cysts, where their removal was not practicable, which he had successfully treated by making an incision in the walls of the abdomen down to the sac. After stretching the sac to the abdominal walls the sac was opened and the contents removed. A drainage-tube was then inserted and the cavity of the cyst washed out several times a day with a ten per cent. solution of Listerine. He relates the history of one case, almost parallel to the case I have reported, in which the cavity of the cyst was washed out three times a day for twenty-nine consecutive days. Each day the cavity became less, until finally the drainage-tube was pushed out and the wound healed. I am unable to find any other record of this treatment, but believe my patient might have been saved by a similar treatment, which, unfortunately, was discovered too late.

I was possibly saved from making a blunder in this case and placing myself in a most embarrassing position, besides doing my patient a cruel injustice by pronouncing this a clear case of pregnancy, from the fact that another did it for me. Six weeks before I saw the case the mother came to me, her daughter declining to come with her. The mother gave the history as I have given it — arrest of menstruation, morning sickness, enlargement of the abdomen, etc. I said nothing, but wondered how the anxious mother could be blind to the fact that her daughter was pregnant. As I had in my earlier days of practice some very undesirable experience in similar cases, I decided to decline the case. One month later the father came to see me, and said that a physician (however, not a member of this society) had pronounced his daughter pregnant. The entire family were indignant, and the daughter, who was extremely sensitive, was greatly depressed by the suspicion. I saw the case soon afterwards, and until a sound had been introduced into the uterus and the measurement noted I was almost positive that the case was one of pregnancy; but, fortunately, I was not pressed for an opinion and never gave one.

The moral I wish to dwell upon is this: Never pronounce an unmarried female pregnant without unequivocal proof that such is the case. I emphasize the word *unmarried*, because a mistaken diagnosis of pregnancy in the married woman can do no harm except placing the physician on undesirable ground, whilst in the unmarried the same diagnosis, if erroneous, compromises the woman's existence, her society, her morals, and her happiness. In the case I have reported the dread of death was intensified by a fear that the report that she was pregnant might be revived and given credence after her death.

Loveland, O.

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THE LAMENT OF THE CULTURED GONOCOCCUS.

BY J. S. H.

[For the LANCET-CLINIC].

I.

Where schizomycetes grin in glee,
Where microbes dig their holes,
Where germs feel free, to split in three,
And exult in their septic souls;
Where the still small sobs of the spores endure,
Where blue bacilli bore,
Where of cultures pure, an adjacent sewer,
Will always provide a score—

Some gonococci, duplex and small,
(They were born at a picnic the previous fall,
And by agile turn and twist in flight
Had escaped the maw of the phagocyte),
Were mourning, each to the other twin:
"What sort of a hole is this we're in?"

II.

Time was when they lived where their fathers died,
In a urethral columnar cell,
Then woe betide, that "devil" they spied,
When they frisked in Boccaccio's "Hell!"
Now, 'twas "O for a lodge in the vestibule,
Or in glands of Bartholin!"
And 'twas "O to rule, in a Skene's tubule,
For we can't grow on gelatin!"

And 'twas "O for the grim and fierce delight,
Of a duel to the death with the leucocyte!
Once again to laugh in specific pride
At the impotent syringe and germicide!
And to mock when our stricture fort defied
The charge of the sound and the whalebone guide!"

III.

And 'twas "O to infect the fresh, fresh youth,
And the rounder, old and gay,
And the jay uncouth, as with Sal or Ruth,
He disports in the new-mown hay!"
And 'twas "O to breed in the infant's eye,
In the swollen joint as well,
And the facts supply, when deacons lie,
And "cart-wheel" stories tell!"

"O 'tis woe in a sawed-off tube to split,
And on measly 'spud' to meekly sit!
To see our spores grow weak and lean,
And the venom depart from our ptomaine!
And never a rainbow of promise to see,
In the crescent curve of the arched chordee!"

IV.

"Let the staphylococcus laugh long and loud,
At the sound of our hopeless wail:
Though our head be bowed, no putrid crowd,
Can such honor as our's assail!
We've snapped many a streptococcus chain,
Hushed many a baccilus bray:
And his search will be vain, who shall search for a stain,
On the record we hold today!"—

"Come death before a life of shame!
Come death before dishonored name!
And never our words will our acts belie—
We fail to infect for we will not try!
And neither in culture, in mucus or pus,
Has Neisser himself seen flies upon us!"

BALSAM OF PERU IN LEUKOPLAKIA OF THE TONGUE.—All surgeons who have been called upon to treat the condition known as leukoplakia or leucoma of the tongue are aware how refractory it is to medication of any kind. The recognized tendency of the disease to become cancerous makes its intractability a matter of greater importance than it would otherwise be. It is encouraging, therefore, to learn from an observer, whose name is already favorably known, that a remedy has at last been found which gives really satisfactory results. Dr. L. Rosenberg has used local applications of pure balsam of Peru in thirteen cases of idiopathic, that is to say, non-syphilitic, leukoplakia with success. The application is made from one to three times daily, a soft brush being used for the fissures and ulcers, and a hard one for the thickened patches. It causes a good deal of smarting and considerable salivation, but the medicament should be kept in the mouth from three to five minutes. The treatment has often to be persevered with for a long time, especially in old standing cases. Dr. Rosenberg, who was himself the subject of the disease, had to continue it for fifteen months before a cure was effected. The Peruvian balsam, according to him, relieves the pain of the fissures and raw surfaces, and promotes their healing; it also makes the white patches disappear. It is to be hoped that Dr. Rosenberg's results will be confirmed by other practitioners.—*British Medical Journal.*

MESSRS. JOHN WYETH & BRO.'s advertisement in this issue is worthy of the careful attention of our patrons; they give a complete list of their compressed hypodermic tablets — embracing in all some seventy-one different agents and combinations — the most complete we have yet seen. The well-known reputation of this house is sufficient guarantee for all the claims they make for them, as well as for all their preparations so widely and favorably known.

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The Paris correspondent of the "Wiener Freie Presse" quotes the following regarding the critical analysis made by DR. FAUVEL, the noted Paris laryngologist, in reference to Mackenzie's book, "Frederick the Noble:"

" * * * That which most surprises me is the fact that medication played a secondary *role* in the management of the case. I would have recommended the employment of *Coca Mariani* to rouse the flagging energies of the patient." * * * "My investigations, dating back to 1865, established the fact that Coca is a potent agent in combating debility. In Europe this remedy is relied on in cases of debility and where pain is a prominent symptom." * * * "As further proof the case of General Grant is cited, in which Doctors Fordyce Barker, Geo. F. Shrady, J. H. Douglas and Sands were active. *Coca Mariani* was employed in this case with success, and it was stated by the attending physicians that without the use of this drug the General would not have been physically able to undergo the strain incidental to the work of finishing his Memoirs."

—*Berliner Tageblatt.*

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DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, July 20, 1889.

The Week.

BROWN-SEQUARD'S TESTICULAR FOUNTAIN OF YOUTH.

It is said of *imagination* that it sometimes produces real effects; thus, Persina, an African Queen, from long gazing at a picture of those classical Caucasians, Perseus and Andromeda, begot a fair and beautiful white child, with no imputation on its darkey paternity; thus, several modern Parisians who experienced the full effects of intense Pasteurism imagined that they were protected from hydrophobia only to fall later victims to acute attacks of rabies. The latest attack of French imagination is the strange conceit of the distinguished physiologist, Brown-Séquard, who claims he has found the Fountain of Youth, so long sought by Ponce de Leon, in the testicles of freshly castrated dogs. Afflicted with obstinate constipation, due to a paresis of the colon and rectum, and an ever-increasing weakness of the bladder and sexual apparatus, the natural result of having been born in 1815, Brown-Séquard has cured himself of all the results of senility; has regulated his bowels with the nicety and accuracy of clock work; has "tripled," according to his own statement, the projectile force of his jet of urine; while those sexual qualities that modesty forbids us to mention have become so rejuvenated that the average grisette takes to the opposite side of the street on the near approach of this most learned octogenarian. Brown-Séquard's physical strength has been so vastly augmented that now, at the age of seventy-two years, he states: "I can now remain standing for three hours without feeling the least fatigue; I am in a better condition for all physical exercise than ever before. For a long time it was impossible for me to apply myself to any brain work in the afternoon; now, I can indulge in any ordinary tasks without difficulty; consequently, there is both an increase in physical and mental vigor, which I owe to these hypodermic injections. *I am really thirty years younger already.*"

Our italics may be noted, for if the inferences drawn from Brown-Séquard's remarks be correct, youth is increased in direct ratio as the injections are administered; thus, if the five injections of dog-sperm vital essence taken by the learned professor made him thirty years younger, we should have an average lease of six years of youth for every hypodermic taken; a hundred injections would make, by the same cogent method of reasoning, any individual submitting to the operation six hundred years younger than he now is. By the multiplication of the hypodermics of dog-sperm vital essence a man might become so young as to date to the period of Sesostris III, or to infinity.

That the Society of Biology has had this wonderful discovery from the mouth of the venerable President himself, is a fact that cannot be denied by the scientific world. Medical circles in Paris were convulsed by this brilliant discovery, and Pasteur's spinal-virus fad was a hundred fold discounted. The dog of Pasteur, or rather the dog's testicles and their valuable spermatic contents, became a thing to be desired, rabies or no rabies, rather than a subject of dread. What *Pasteurism* is to the man, so is *Séquardism*—and we lay claim to a copyright on this newly-coined English word—is to the dog, recalling the distich:

> "The man it was received the bite,
> The dog it was that died."

Societies for the "Propagation of Canine Quadrupeds" will no doubt soon become more numerous than "Pasteur Institutes," and dogs' testicles dearer than calves' sweetbreads with French peas.

To the weak-bladdered of all American communities,—and in this class are largely included Methodist preachers and the New York legal fraternity,—this new discovery of Brown-Séquard comes as a blessed boon, for, to use the veritable words of the distinguished French *savant*, "*Mes sphincters fonctionnent merveilleusement, le jet de mon urine n'a rien à envier au plus viguoreux des Gascons; en un mot j'ai retrouvé mes vingt ans.*" In other words, his sphincters work marvelously and his urinating strength is equal to that of a vigorous Gascon; he exclaims: "*I have found my twentieth year!*"

Happy Brown-Séquard! "It is fortunate the eminent professor was discreet enough not to insist on his juvenile prowess," remarks a witty French journalist, "for without doubt he did not wish to excite the envy and jealousy of his colleagues of the Institute.

The official organ of the Biological Society, the *Gazette Hebdomadaire*, gives the following recipe for the preparation. Now that the secret is out and the world has the use of it "free, gratis, for nothing," a mighty howl will undoubtedly go up from an infinite host of castrated bow-wows. Says Séquard: "The testicular bodies are reduced to a paste, to which is added from two to five centimetre cubes of distilled water; this is lightly laid on a filter, and the liquid obtained is immediately injected." But Brown-Séquard has not only injected this liquid into his lower limbs, but has likewise taken the testicular paste and introduced it into his veins, when, as he remarks, "the effects are simply marvelous." Says the *Gazette Hebdomadaire:* "All the world knows that eunuchs are feeble, physically, morally, and intellectually. We also know that feebleness exists among men who abuse their sexual strength. It was this that has induced Brown-Séquard to teach *that sperm may be injected into the veins of an old man without danger and produce all the manifestations of sexual youthfulness.*" If dog sperm produces such magical effect on man, the world will be greatly excited to know what pussy sperm will do under similar hypodermic circumstances. The amorous feline quadruped whose serenade is heard with pleasure on nights,

> "When purrings and meows rise to the moon
> And all the back sheds have a cat-like tune."

We reiterate, the amorous feline quadruped is, as is well known, much more sexually developed in proportion to size than the canine quadruped. We trust that Professor Brown-Séquard will naturally drift into a physiological study of Parisian cats.

It is said that Séquardism has aroused such interest in the State of Kentucky that one of her noblest Senators will introduce a bill next session entitled: "An act to incorporate a National Brown-Séquard Institute, for the rejuvenation of Members of Congress incapacitated temporarily in the discharge of their duties to their country," reserving for United States Senators, however, the privilege of exemption from the application of the act.

The more we look at this profound and brilliant discovery of Brown-Séquard's the more our wonder and admiration is awakened. We see, in imagination, the great modern expounder of experimental physiology as he addressed his excited medical confreres in the following eloquent words:

"You knew me six months since. I was old, broken down, my mind even enfeebled; my sphincters had lost their strength; I was slowly drifting into senility, that which is not surprising, since I was born in 1815. Look at me to-day. My eye is brilliant, my words are clear cut and distinctly uttered, my intelligence is brighter than ever. I work in my laboratory twelve hours daily, and *I am not weary at night*."

That Brown-Séquard will find followers and imitators goes without saying; but it remains to be seen whether dogs be principal sufferers from the results of these scientific experiments. As a matter of curiosity, will these dogs be subjected to Pasteurism before being castrated? It is true that Brown-Séquard is modest enough not to proclaim the particular element in dog's sperm that produces this vivifying power. Perhaps this vivifying element is the same in all animals of creation, and the monkey testicle may not be more proper in the evolutionary line than that of the brayful jack. We await future results of this latest medical discovery with patient expectation. If Brown-Séquard has actually discovered a life-prolonging principle in the seminal glands, all the old widowers and bachelors in the country will be in the matrimonial market, and society will assiduously cultivate the much desired supply of canine testicular organs.

From a late number of the *Revue Generale de Therapeutique* we cull the following lines *apropos* to this subject from the pen of our talented young friend, Doctor Agerontimos:

"Our century is truly a wonderful age
  And with its marvels man is struck hard.
Enter the study of Biology's Sage,
  Witness the glory of Saint Séquard-
Brown, a strong fellow of seventy-two;
  Firm is his voice, masculine forsooth,
As he most proudly proclaimeth to you:
  'I have discovered the Fountain of Youth!

My famous remedy is free to all.
  A canine quadruped's testicles use.
From realms of senility into youth fall.
  Welcome to doggy's seminal juice.
Now, take your hypodermic in hand,
  Into the weak skin the bright needle steer;
Then you will say my discovery's grand
  When you behold your lost youth reappear.'"

We regret that our valuable columns will not permit of a more lengthy extract from this poem, but we deem this all that that is wanted, at least by the reader.

T.C.M.

AN EXTRAORDINARY EXPERIMENT AND ITS RESULTS.—The following comments from a correspondent appear in a recent number of the *Med. Press and Circular*:

At the Société de Biologie, M. Brown-Séquard made a very curious communication which will admit of very different interpretations. He said that he had been lately making experiments of a very interesting nature. Guided by certain theoretical ideas, he extracted the liquid from the testicles of animals and injected it into other animals, and finally *into himself*. The effect on the animals he was not able to fully understand, but he could give an account of what he himself experienced. As to the immediate effect of the injection he would not say more than that a certain amount of inflammation followed, which, however, never went on to suppuration. After some time he felt himself becoming a new man: constipation from which he suffered for several years disappeared as if by enchantment, urinary troubles which gave him for some time much uneasiness ceased almost immediately, and not only that, but strength returned to his legs, so that he can remain standing for hours together without fatigue. His intellectual powers were also greatly stimulated, and in fact he declared that he felt himself at least *thirty years younger*. He discreetly threw out a hint as to the other functions which were revived by these experiments! M. Brown-Séquard concluded by saying, that it might be thought he was dreaming, or suffering under a delusion, but he assured them he was not and he maintained exactly what he reported. A member mildly suggested that the fever produced by the irritating liquid injected may have produced in a certain sense the phenomena, but he was immediately sat on by the eminent physiologist. Perhaps, with all respect, the well-known words of the governor Felix to St. Paul might be used with more truth towards our learned friend.

[The following is taken from the next issue]:

The remarks which appeared in your last issue were made the subject of reference by Dr. Brown-Séquard at the Société de Biologie. The distinguished physiologist said that concerning the "wonderful results" he had obtained from the injection of the liquid from trituration of the testicles of young animals, he could but confirm what he had already alleged. Although he had suspended the injections, he felt himself vigorous, and he had recently made two voyages without the slightest fatigue. He suggested that women could have their vital forces recuperated by injection of a liquid derived from trituration of ovaries! In any case the method of M. Brown-Séquard is not new. Horace, in one of his odes, beseeches the witch Canidia to reveal to him the secret of the draught which she prepared at night by crushing in a mortar pieces of flesh torn from the fiery horses of Rome, and the patricians, says the Latin poet, used this mysterious liquid with great confidence. Consequently, M. Séquard is but an humble successor of Canidia!

[The following is taken from the *British Medical Journal.*]:

The extraordinary statements made by Professor Brown-Séquard as to the efficiency of hypodermic injections of fluid expressed from the testicles of young animals in senile debility have been to a certain extent confirmed by M. Variot, who made a communication to the Société de Biologie on June 29th. The patients chosen were debilitated men, aged 54, 56, and 68 years respectively, and they were not informed of the nature of the treatment adopted. In all three cases the injections were followed by nervous excitement, increased muscular power, and stimulation and regulation of digestion. M. Brown-Séquard said that M. Variot's observations disposed of the objection that the results he had observed in himself were due to "suggestion."

[We are still of the opinion that the treatment is suggestive."]

THE AMERICAN MEDICAL ASSOCIATION.

For more than forty years the medical profession of this country has rallied to the support of a standard borne by one man. To be sure, his aids were men of the highest attainments in their profession, but for the long period of forty years the one central, commanding figure in that organization, which was a creature of his conception, has been Dr. N. S. Davis. So far as our knowledge goes, he has not missed an attendance at the annual meetings in all those forty years; nor is it probable that there has been any important action taken by the American Medical Association, at any time, in which the concept of his brain and the cunning of his hand were not apparent to mould and shape its course. In fact, the most remarkable thing that has occurred in the history of medicine in this country has been the wondrous power and tact displayed continuously for nearly half a century by this Grand Old Man in retaining his grip on a great and rapidly growing National organization like the American Medical Association. This is a historic fact, and every other member of our guild may now turn to him with feelings of the kindest and most profound veneration and respect.

The professional work of the past forty years, as represented in the transactions of the American Medical Association, has been well and skilfully done, and is worthy of all honor and commendation.

In taking a retrospect of the past, let us not forget the future. The members of the American Medical Association will not in the ensuing forty years, or for any number of years, recognize one master mind in a sound of the bugle call to assemble for duty. The Grand Old Man will not be able much longer to give the blast and guide the hosts, but in the very nature of things there must be some one strong man, committee or thing around which the entire medical profession of this great country will rally.

From our outlook over the horizon we are not able to discern a man that would not at once be suffocated with the mantle of the one who now wears it.

A scattered Executive committee cannot be unified and always harmonized for constant efficient work. We are mindful that ambition is apt to beget jealousy, and jealousy begets dissension and strife, all of which is unseemly and to be avoided.

But one thing presents itself to our vision as worthy of attention and profound consideration, and that is the Journal of the Association. This must be the thing to bear aloft the standard of the medical profession. This must be the instrument to sound the assembly. This must be the channel for intercommunication. Through this organ alone can be piped the wishes and labors of the Collective Investigations Committee. In its pages must be found the records of the Annual Assembly and the work done in the annual and other meetings of the organized branches of the parent association. Very much of the work cannot be accomplished in any other manner or through any other medium than that of the Association Journal.

The Journal of the Association should have the good will, aid, and co-operation of the independent medical press. So far as possible they should become co-laborers in a common cause and field. The Journal of the Association has very superior business advantages over the independent medical press, and because of its peculiar relation to the entire medical profession and to other journals should not be conducted as a business antagonist. We refer to its pages being used for the purpose of disparagement of other journals. Such a course will not be profitable to the *Journal* and is unworthy of the high plane on which it should be conducted. The independent press will ever have a field of its own creation. This will be of a more or less local and special character, and is only limited by the ability and means of its editors and proprietors.

It is with a thrill of pleasure we recall the wondrous strides made in the science and art of medicine during the past fifteen years, and note how faithfully every stride has been heralded by the watchful, independent medical press. In the future race there will be a survival of the fittest. The strong will grow stronger, and the weak will succumb to a fate that is inevitable.

AMERICAN DENTAL ASSOCIATION. — The twenty-ninth annual meeting of the American Dental Association will be held at Saratoga Springs, commencing at 10 o'clock a.m., Tuesday, August 6, 1889.

The Railroad Traffic Association have agreed to furnish rates to Saratoga and return for one and one-third full fare. The regular ordinary ticket going should be bought at the starting point, taking the agent's receipt for the same, which, when countersigned by the Secretary of the Association, will entitle the holder to return on the reduced rate.

Every one wishing to avail himself of this regulation must attend to it on his leaving home.

[Carry this bit of information to the Secretary of the American Medical Association.

THE American Rhinological Association will hold its seventh annual meeting at Chicago, Ill., August 28, 29 and 30, 1889.

The Committee on the Examination of the Inmates of Insane Asylums will make their reports "On the Relation of Rhinal Inflammations to the Mind" at this session.

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations. LEONARD FREEMAN, M.D.,
J. C. OLIVER, M.D.,
OTIS L. CAMERON, M.D.,
F. O. MARSH, M.D.,
Curators and Microscopists.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending July 13, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	...	..	...	..	...	..	...
2nd	7	..	...	..	...	..	3	..	...	..	...
3rd	5	2	...	..	...	..	...	..	...	1	...
4th	...	..	...	..	...	..	2	..	...		...
5th	6	1	...	..	...	..	...	..	...	..	...
6th	2	..	...	..	...	..	...	..	...	..	...
7th	2	1	...	..	...	..	...	..	...	..	...
8th	3	..	...	..	...	..	...	..	...	..	...
9th	...	..	...	..	...	..	...	..	...	..	..
10th	7	..	...	..	...	..	3	..	...	..	...
11th	5	2	...	..	...	..	1	..	...	..	1
12th	5	1	1	..	...	..	...	..	...	..	...
13th	6	2	...	..	2	..	2	1	...	..	1
14th	3	..	...	..	...	..	...	..	...	..	...
15th	...	..	...	..	...	..	4	..	...	..	...
16th	1	..	...	..	...	..	...	..	...	..	...
17th	3	..	1	..	...	..	1	..	...	..	...
18th	4	..	...	.	1	..	...	..	...	..	...
19th	4	..	...	..	...	..	...	..	...	..	...
20th	..	..	...	..	...	..	...	..	...	..	...
21st	3	1	..	..	...	..	...	..	...	..	...
22nd	2	..	...	..	..	..	...	..	...	..	...
23rd	3	..	..	..	3	..	1	..	...	..	...
24th	...	..	...	..	...	..	...	..	...	..	...
25th	3	..	...	..	...	..	...	..	...	..	...
26th	5	..	...	..	...	..	...	..	...	..	...
27th	1	1	...	..	...	..	...	..	...	..	...
28th	2	..	...	..	...	..	3	..	...	..	...
29th	1	..	...	..	...	..	...	..	...	..	...
30th	1	..	...	..	...	..	...	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	..	...
Other public inst'ns	...	..	...	..	...	..	...	..	...	..	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	84	11	2	..	6	..	20	1	...	1	2
Last week	109	9	4	1	...	..	18	6	...	1	...

The following is the mortality report for the week ending July 13, 1889.

Alcoholism	1
Croup	2
Cholera Morbus	3
Cholera Infantum	19
Cerebro-spinal Meningitis	7
Diarrhœa	2
Entero-Colitis	4
Other Zymotic Diseases	16—54
Cancer	3
Phthisis Pulmonalis	12
Other Constitutional Diseases	9—24
Apoplexy	4
Bright's Disease	1
Bronchitis	4
Convulsions	7
Heart Disease	3
Liver Disease	1
Peritonitis	1
Pneumonia	5
Other Local Diseases	19—45
Old Age	3
Premature Birth	2
Puerperal Peritonitis	1
Other Developmental Diseases	6—12
Accidental	2
Unknown	1— 3
Deaths from all Causes	138
Annual death rate per 1000	22.08
Deaths for corresponding week in 1888	128
Deaths for corresponding week in 1887	165

Byron Stanton, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 47 observers (embracing 38 counties) show the following diseases to prevail for the week ending Friday noon, July 12, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Diarrhœa	35	95
Cholera Morbus	30	62
Cholera Infantum	18	29
Dysentery	17	22
Whooping Cough	13	51
Bronchitis, acute	10	19
Rheumatism (acute)	10	18
Tonsillitis	9	12
Erysipelas	9	9
Intermittent Fever	8	18
Remittent Fever	8	18
Typho-Mal. Fever	4	11
Consumption (Pul.)	4	4
Diphtheria	4	4
Pneumonia	3	4
Pleurisy	3	3
Measles	2	7
Scarlet Fever	2	6
Typhoid Fever	2	2
Cerebro-Spin. Fever	1	1
Puerperal Fever	0	0
Croup, membranous	0	0

REMARKS.

Diphtheria reported by observers at Tranquility, Port Jefferson, Zanesville, Louisville, and Mainevile. Reported by health officers: Cincinnti, 1 death; Toledo, 1 case, 1 death; Columbus, 1 case; Defiance, 1 case; Painesville, 1 case; Xenia, 1 case.

Scarlet Fever reported by observers at Kalida and Waterford. Reported by health officers: Columbus, 5 cases; Toledo, 1 case; Xenia, 1 case; Piqua, 1 case; Defiance, 3 cases; Painesville, 1 case; Millersburg, 1 case.

Typhoid Fever reported by observers Sandusky and Stafford. Reported by health officers: Cincinnati, 1 death; Piqua, "several" cases.

C. O. Probst, M.D., Secretary.

The Lancet-Clinic and *Obstetric Gazette* to one address one year for $5.

Selected.

CHEST PERCUSSION DON'TS.

By THOMAS J. MAYS, M.D., in *Med. and Surg. Reporter.*

Don't percuss in a cold room, and always divest that part of the chest which you examine of all clothing.

Don't undertake to percuss without doing it thoroughly and methodically.

Don't forget that percussion, like all the other methods of physical diagnosis, is but a process by which you compare the resonance, or want of resonance, of one side with the other.

Don't use a hammer and pleximeter in preference to the middle fingers of both hands.

Don't fail to keep the nail of the percussing finger well trimmed.

Don't strike the chest as if you were cracking stones, or committing an assault on your patient.

Don't strike from the elbow, but only from the wrist or knuckle.

Don't strike slantingly, but always perpendicularly to the chest walls.

Don't vary the force of your blows.

Don't allow the hammer finger to remain on the pleximeter finger after the blow is delivered, but allow it to rebound like the hammer of a piano.

Don't disturb the relative position between your ear and the patient's chest more than you can possibly help; therefore, always lay the pleximeter finger in such a direction that the distal end points outward and the central end toward the middle of the body.

Don't percuss over a rib, on one side, and over an intercostal space on the other.

Don't forget that the percussion pitch is normally higher over the right than over the right apex.

Don't omit clavicular percussion.

Don't place too much confidence in a single abnormal physical sign.

Don't allow any voluntary muscular tension or stiffness of the patient's chest.

Don't allow the arms to be folded, but direct that they should hang loosely by the patient's side, with a slight forward inclination.

Don't stand your patient against the wall, or let him lean against any object.

Don't fail to realize that percussion skill depends on constant practice.

Don't neglect to familiarize yourself thoroughly with such high and low-pitched sounds as those given out by percussing the head of the humerus, and the infrascapular region in health; and also with all the intermediate grades of sound found between these two points.

Don't confine your attention in your percussion practice simply to the human chest, but percuss anything suitable that may come in your way—a wooden table, desk, etc., furnish a variety of sounds for such practice.

Don't forget that occasionally pulmonary consolidation, when located in close proximity to a large bronchus, or to the hollow abdominal viscera, evinces a tympanitic percussion sound.

Don't fail, in cases of complete dulness or flatness at the base of the chest, to mark the upper limit of such dulness in front while the patient is standing; then place him on his back, and ascertain whether the line of dulness changes.

THE MONOPOLY OF ANTIPYRIN.—The French Courts will shortly be called upon to decide a very knotty point in commercial jurisprudence which possesses a special interest for medical men and pharmacists. For some time past the virtual monopoly which the Germans have enforced in the manufacture of drugs, such as antipyrin, has excited the anger and jealousy of French chemists. The attempt to evade the proprietary use of the word antipyrin by the substitution of another appellation not having been crowned with success, an effort is to be made to bring to bear the law forbidding the granting of patent rights to new drugs. It is urged that the exclusive right to a name which is either an abbreviation of the chemical designation or is indicative of its physiological effect, is, in point of fact, an indirect way of obtaining the very protection which the law expressly refuses, and should not therefore be recognized.

The question is a delicate one, but although we dislike the idea of a "corner" in drugs, it is difficult to give any valid reason why the labors of practical chemists should not be protected in the same way as those of other inventors and discoverers.—*Med. Press and Circular.*

THE SPREAD OF LEPROSY.

[From the *Med. Press and Circular.*]

The question of the contagiousness of leprosy and the possibility of its invading countries which for centuries have been free from its ravages, has of late attracted an unexpected amount of attention. A little local color has been imported into the consideration of the matter by sundry stories of lepers wandering at large in this country, one of whom, *horresco referens*, appears to have been engaged in the meat trade. As a matter of fact, there are always a certain small number of imported cases in this country, many of whom are soldiers who have contracted the disease while on foreign service. It is, indeed, rather fortunate that this is the case, as otherwise the English practitioner or student would have no opportunity of informing himself as to the clinical manifestations of this terribly malady. Now and again they are to be seen in the wards of our general hospitals, and although they are undoubtedly repulsive bed-fellows, no practical reason has ever been alleged against their admission to such institutions. While the disease possesses a purely scientific interest in this country, it is quite otherwise abroad, where in various quarters of the the globe the question of its spread and the means of preventing it is more or less pressing. The meeting over which the Prince of Wales presided a short time since, though ostensibly with the object of discussing a scheme for providing a suitable memorial of the heroic devotion of Father Damien, the martyr priest, in reality invited a discussion on the whole subject. The only difficulty in the way of carrying out the suggestion of setting apart a ward for the reception of leper patients, akin to the special cancer ward of the Middlesex Hospital, would be to find an adequate number of lepers to avail themselves of the proffered hospitality. Otherwise, both from a humanitarian and an educational point of view, the suggestion is admirable. Far more to the point was the proposal to set on foot an exhaustive investigation into the nature and etiology of this redoubtable affection. The ancients always treated this disease as eminently contagious, and the same holds good in most countries in which it is still endemic. Professional opinion, however, has oscillated from time to time, but the general current of opinion by those specially qualified to speak on the question was rather opposed to the idea of its being transmissible. More recent observations, however, have seemed to show very clearly that, whatever its cause may be, its transmissibility under certain circumstances is possible. Seeing that for many years all restrictions have been removed from the liberty of the lepers in India, who number upwards of 250,000, it is highly desirable that a further attempt should be made to ascertain definitively whether or not the public interest demands the sequestration of these unfortunates. Should any evidence pointing indisputably to its communicability be forthcoming, public opinion would not hesitate to approve the enactment of such precautionary measures as would tend to place a check on its further propagation. Several of our colonies are beginning to feel uneasy at the apparent increase of the number of cases of leprosy occurring in their territories, and are anxiously awaiting instructions from scientific headquarters as to the proper course to adopt. Heredity is a factor of undoubted importance in the dissemination of the disease, and an elementary precaution would be the separation of the sexes, a measure which is hardly possible unless segregation and isolation are enforced. Such measures may seem harsh, but if public safety demands the sacrifice there should be no hesitation in enforcing them. The victims will at any rate have that care, attention, and treatment which their miserable plight demands, and this, considering the peculiarly distressing nature of the malady, should reconcile them to some extent to the measures which are deemed necessary to prevent the contamination of their fellows. Now that public interest has been thoroughly aroused in this matter, there will be no difficulty in raising the necessary funds for carrying out the suggestions which fell from His Royal Highness at the meeting referred to, and it is to be hoped that no time will be lost in bringing them to a practical issue. The insidious and progressive character of the disease, the frightful deformities that supervene in the tubercular form, and the mutilations of the anæsthetic variety, are features which cannot fail to impress the imagination, and to give rise to sympathy with the victims, but there is nothing to warrant anything in the nature of a "scare," which the correspondence which has lately appeared in the journals is rather calculated to bring about.

ANTISEPTIC IRRIGATION FOR CHRONIC SYNOVITIS. — The treatment of chronic joint swellings, especially of the knee, is often a matter of discouragement, owing to the unsuccessful nature of the results obtained. Such measures as rest, compression, and aspiration may, and perhaps do, in some few instances lead to a degree of improvement, but certainly the rule is that the end attained falls short of that which could be desired. A plan of treating such affections, which has been occasionally adopted with success, is advocated as being worthy of more frequent employment by Dr. M. H. Richardson, of Boston. This consists in first withdrawing from the diseased joint the fluid effused into it by means of an aspiration syringe, and then injecting into it a quantity of a five per cent. solution of carbolic acid, from three to five ounces or more. Massage of the joint is then carried out to insure that all its structures are brought well into contact with the antiseptic liquid, which is then allowed to escape, aspiration assisting in the process. The returning solution is turbid from the presence of coagulated albumen, which may possibly exist in amount sufficient to block the aspirating needle more or less completely. The joint having been thus emptied, the limb is fixed on a splint and pressure applied. After a few days it is found that pain is quite absent, and the joint scarcely at all full of fluid, while in two or three weeks cure seems to be quite effctual. A plaster-of-Paris bandage is recommended to be worn for a time. The situation advised for insertion of the needle is the outer side of the joint opposite the upper edge of the patella, and in case a reaccumulation of fluid takes place Dr. Richardson advises that a repetition of the operation should be resorted to, but he insists on the propriety of not adopting it in the first instance until the less radical means of alleviating the condition of the joint have received fair trial. He reports several cases in illustration of the advantage derived from the proceeding; in all very marked improvement and restoration of usefulness took place.—*Med. Press and Circular.*

Bibliography.

PRACTICAL LESSONS IN NURSING: Diseases and Injuries of the Ear. Their Prevention and Cure.

By CHARLES H. BURNETT, A. M., M. D., Aural Surgeon to the Presbyterian Hospital; one of the Consulting Aurists to the Pennsylvania Institution for the Deaf and Dumb; Lecturer on Otology, Women's Medical College of Pennsylvania, in Philadelphia; Ex-President of the American Otological Society; Fellow of the College of Physicians of Philadelphia. J. B. Lippincott, publishers, Philadelphia, 1889.

This work is intended for the people, and is written with that object in view. It contains a large amount of valuable advice about the care of the ears. It is written in a style that any person can understand, as the technical terms have been left out and simple explanatory terms used in their place. The author has given some very good advice on hygiene and the general care of the body in different forms of diseases of the ear.

At the same time that the work was not written for physicians, yet they would find many valuable statements in it, and the physician who would read it carefully would say that the time had been well spent, and that from its perusal he had added to his store of knowledge and would be better qualified to give advice to his patients who were suffering from some disease of the organ of hearing. For those having the care of the sick, it is a valuable work. We heartily agree with the author in his remarks about taking a cold bath in a cold room, especially in winter time.

W. R. A.

SIXTEENTH ANNUAL REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH OF THE STATE OF MICHIGAN, for the year ending June 30, 1888.

Published by Darius D. Thorp, State Printer and Binder, Lansing, Michigan.

This report is divided into two parts: The first part contains the Secretary's report of the work of the Board, etc. The second part contains papers, abstracts, and reports. In addition to general information on sanitation, prevention of diseases by hygiene, plans for state buildings, etc., it also contains reports of various communicable diseases in the State for

1887, such as diphtheria, scarlatina, typhoid fever, measles, whooping-cough, small-pox, glanders, hydrophobia, lump-jaw in cattle, supposed anthrax in Kent County, typhus fever at Quincy, and alleged nuisances throughout the State. The report is very nicely gotten up, and contains a large amount of valuable reading to any one interested in sanitary matters. W.R.A.

MENTHOL AND SAFFROL IN NEURALGIAS.—Menthol has a distinct use in relieving neuralgias of the fifth nerve and other local painful affections. Its local employment, either in stick or in plaster, was very popular. It is, in fact, a local anæsthetic; and, moreover, when applied in plaster, gives a comforting sensation of warmth to the painful part. Its action, so applied, is not, however, very powerful. Its internal administration has been advised by Dana for many painful affections. In doses of five to twenty grains it gives a pleasant feeling of warmth, while it stimulates the cardiac action, without increasing its rapidity, and raises the arterial blood-pressure. But the chief action noticed was that it relieved pain. It was found especially useful in migraine, and in supra-orbital neuralgia, and in the headache of neurasthenic and anæmic patients. In some cases of sciatica relief was obtained; thus adding another drug to the multitude which may be used, often without effect, in this neurosis. Dana goes so far as to recommend menthol in preference to antipyrin in certain cases, in weakly and anæmic individuals, in whom the administration of antipyrin is not without danger, owing to its tendency to produce collapse. Saffrol, $C_{10}H_{10}O_2$, was also found to have the same effect as menthol. It is the liquid stearoptene of oil of sassafras, and may be given in headache and in sciatica in doses of twenty drops.—*British Medical Journal.*

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CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, July 27, 1889. *WHOLE VOLUME LXII.*

Original Articles.

THE RELATION OF CATARRHAL AFFECTIONS OF THE UPPER AIR PASSAGES TO EAR DISEASE.

A Paper read before to the Academy of Medicine, June 17, 1889,

By J. E. Boylan, M.D.,
Professor of Laryngology and Otology in the Cincinnati Polyclinic.

That acute and even subacute catarrhal affections of the upper air passages do not extend readily *ex contiguo* to the ear, is to be inferred from the fact that we frequently find them existing in the larynx, pharynx, and nose in the absence of all symptoms of ear disease. The co-existence of acute catarrh of the more protected middle ear with these conditions, frequently observed after exposure, is due to a common cause—the injury received by the tissues, and at times to a catarrhal diathesis; and a repetition of these injuries or exposures, together with a predisposition to them, is undoubtedly an original cause of certain cases of ear disease. Yet the longer we observe and treat these parts the more apparent it must become that middle-ear disease, with all its disastrous results, is developed from chronic catarrhal affections of the pharynx and nose in the very great majority of cases, and that by the timely treatment of these conditions it may be prevented or cured in almost every instance. Often enough we are able to convince ourselves by observation of the direct extension of the irritation and inflammation of a muco-purulent post-nasal catarrh upon ostii tubæ, bringing them to the condition in which we so frequently see them accompanying this affection, namely: inflamed, covered with yellowish secretion, and swollen or edematous to such an extent that air cannot possibly reach the middle ear, unless forced in. Tubal catarrh is thus developed, which does not extend at once to the tympanic cavity, but may remain confined to this region a long time. Once fairly established, however, it is in turn kept in constant irritation and activity by the conditions to be considered, which are almost invariably associated with it, and which constitute the real cause of the disease, till it finally and inevitably involves the middle ear, for reasons quite familiar to the otologist.

If, with the final establishment of disease of the organ of hearing, the condition passed beyond our control, there would be much more uncertainty as to the extent to which chronic hypertrophic affections of the nose and pharynx are instrumental in its production. As a matter of fact, however, we attain in the treatment of the ear, when disease is still subacute, and at times even where it has existed for years, most gratifying results. In many of these instances complete restitution is directly referable to the removal of the cause—not only the original, but the still existing cause; while, on the other hand, if this be neglected we are unable to effect a cure.

A most potent factor in the production of ear disease is chronic congestion of the mucous membrane of the naso-pharynx. In the quite normal condition the turbinated bodies have a finely wrinkled appearance, but when filled with blood they become rapidly engorged, and are greatly distended, so that a probe may be deeply imbedded in their surface; upon the application of cocaine they are again rapidly reduced to their normal condition. Kohlrauch first called attention to the great venous network or cavernous spaces lying in the deep longitudinal diameter of the turbinated bodies, and this tissue has hence been aptly called Kohlrauch's *erectile tissue*. Since then the excessive vascular supply of the naso-pharynx has been the subject of extensive investigation. Prof. Trautman, of Berlin, has recently demonstrated, by a series of injections, the intimate relation of the venous plexuses supplying the nose, pharynx, and pharyngeal extremities of the Eustachian tubes, and the ease with which mechanical hyperæmia of this whole region may be produced by pathological changes. Trautman concludes that even in acute and chronic catarrh of the naso-pharynx mechanical hyperæmia of the whole venous system of the turbinated tissue takes place. When this congestion has lasted a given time, hypertrophy of the sub-epithelial connective tissue results, and the surface of the turbinated bodies are no longer smooth and yielding to the probe, but become hard, varying in degree, granular, and frequently enlarged to such an extent as to partially or wholly occlude one or both nares and greatly interfere with respiration. This hypertrophy may affect the whole surface of the lower and middle bodies, but it frequently occurs to a greater degree at the anterior or posterior extremities of the inferior ones; and we often see it blocking the whole lower part of the passage in front, or lying on the floor of, and projecting beyond the posterior nares into the pharynx. Hypertrophy of the turbinated bodies is found to exist very frequently with middle ear disease, catarrhal and purulent, especially when developed to such an extent as to nearly close the nares; and when it is unilateral, I have almost invariably found the ear affected most, or only affected, on the side of the occlusion. Besides pressure, which becomes a constantly active cause in the maintenance of the general congestion, a reason for the frequent development of ear disease from nasal stenosis is advanced in the fact that the current of air, having been diverted by mouth breathing from the upper part of the pharynx, and the palato-tubal muscles being liable to become more or less paralytic from long-continued irritation, the amount of air necessary to equalize the external pressure upon the drum does not obtain access through the tube. But with nasal hypertrophies, muco-purulent catarrh of the adenoid tissue of the vault of the pharynx is found almost invariably associated, whether due to direct extension of inflammation, to stimulation of the very numerous glands of this tissue by co-existing hyperæmia, or, as Woaks suggests as possible, in part to identity of the vaso-motor nerve supply; and in the tendency of the abundant glandular tissue of the pharynx to catarrhal inflammation and hypertrophy, we have a much more direct and probably the most frequent cause of ear disease. This tissue, which has received but slight attention in text-books, is not infrequently alluded to as little more than the usual amount of lymphoid structure to be found beneath the mucous membrane throughout the entire length of the alimentary tract—an incorrect and misleading description of the condition. In the vault of the pharynx it constitutes, as Lacauchie and Trautman have shown, a well-defined and typical tonsil, affected by similar diseases and quite as prone to hypertrophy as those of the fauces, but bearing in its immediate proximity to the Eustachian tube a most important relation to disease of that structure. The pathological importance of the pharyngeal tonsil was first shown by Meyer, of Copenhagen, twelve years ago, who discovered in its hypertrophy a frequent cause of ear disease, many cases of which he cured by its reduction. Of 175 cases that he reported, no less than 130 were complicated with either catarrhal or purulent middle ear inflammation. But Meyer's observations were chiefly of a pathological nature, and he believed the hypertrophy to be more diffused, and to extend, at times, into the tube. The first exact anatomical and histological investigation of this structure was by Lacauchie, whose name it bears; the most exhaustive and detailed description is presented by Prof. Trautman in his recent work on "Adenoid Vegetations and Their Treatment," as the result of no less than 190 dissections and 150 operations. Trautman has demonstrated that the pharyngeal tonsil comprises nearly the whole thickness of the tissue, and is attached by loose connective tissue to the fibro-cartilago-basilaris, no muscular fibres existing behind it. According to him the bulk of the tonsil is in early years divided into six well defined and separate ridges, which give rise to the deep longitudinal fissures—usually five in number — found in the hypertrophied gland. These ridges originate just behind the upper border of the posterior nares, from which they are distinctly separated by an elevated ridge of the mucous membrane. They are thickest in front, and converge rapidly as they run backwards in a sagittal direction, having thus a fan-shaped outline. In front these ridges are at times confluent, so as to form a cross ridge above the nares, and this part of the tonsil, when hypertrophied, may hang like a curtain against the posterior nares so as to render nose breathing almost or quite impossible. During development this tissue may split, and there are thus formed tits or cones, also seen in its hypertrophy. In addition to the sagittal ridges just mentioned, which constitute three-fourths of the tonsil, and which are chiefly concerned in its excessive development, there is a smaller posterior portion, consisting usually of three ridges on a side, which run nearly in a frontal diameter and somewhat forward; these enter the groove of Rosenmüller, where, however, they become very flat; they are recognizable extending onto the tube lip, and with the microscope may be traced even into the tube entrance. Trautman gives the histology in great detail. Macroscopically the follicles are plainly visible; some of them become confluent and are as large as a pea. In purulent follicular catarrh of this tonsil—a very common disease—a section through the gland shows the follicles fallen out, leaving holes the size of a millet seed.

Upon the tube lips adenoid tissue is also in excess, and, according to Gerlach, Schwarz, and others, may hypertrophy. At the base of the tongue it has been described by Prof. Waldyer as nothing less than a flattened tonsil, which he designates the tonsilla linguis. Waldyer has further shown that a layer of lymphatic tissue can be traced from the latter around the arcus glosso-palatinus to the tonsil of the fauces, from it to the tissue of the tube lips, and thence to the palatine tonsil on both sides; and this tissue as a whole is, hence, known as Waldyer's lymphatic ring. Wherever now this extremely vascular adenoid tissue is in excess in this region, it is prone to inflammation and to growth. Thus hypertrophic catarrh of the pharyngeal tonsil, though often overlooked, is more frequent than a similar condition of the tonsils of the fauces. At the base of the tongue, while less dense, it is by no means exempt from hypertrophy, as those who have occasion to examine this region very frequently are aware, though it cannot here produce occlusion of the tubes or interfere with the passage of air through the nares. An exceptionally interesting case of this kind, which I shall report at length elsewhere, I have at present under observation, in which the epiglottis is not only interfered with in its movement, but completely overshadowed by lobulated vegetations and depressed to such an extent as to cause, at times, alarming dyspnœa. In the pharynx, however, growth of this tissue is a direct cause of ear disease, by covering the tube mouth, thus causing thinning of the air in the middle ear and retraction and adhesion of the drum, and notably by pressure upon the large venous branches, producing stasis, œdema, and accumulation of secretion in the tympanic cavity. It may develop to such an extent as to fill the whole vault of the pharynx and hang in festoons behind the soft palate, though its attachment exactly corresponds to the normal tonsil, and according to Trautman, while the lateral ledges may hypertrophy and *lie in* the recessus pharyngeus, the tissue in that case can always be lifed out of it; and in none of his cases did the vegetations ever originate from the tube lip—a fact that is of the greatest interest as regards the result of their removal.

The immediate relation between diseases of the tonsils of the fauces, and ear disease, is less capable of demonstration, but their frequent co-existence is a matter of long standing and common experience.

Hypertrophy of the palatine tonsil is not infrequently followed by otitis media, in the absence of enlargment of the tissue of the pharynx. Gruber states that inflammation of the Eustachian tubes can accompany their slight hypertrophy from the fact that the growth may develop upwards and backwards. Frequently, however, enlargement of these bodies is but part of a chronic catarrhal condition of this whole region, and by oft-repeated irritation from slight causes, and by pressure, they contribute greatly to the general congestion.

Of Trautman's 150 cases of vegetations in the pharynx, seventy-two were accompanied by excessive development of these structures. The tonsils of the fauces do not atrophy as readily as that of the pharynx, and they frequently remain enlarged in later years.

It is not intended to even enumerate here the various conditions which may play a part in the development of ear disease, but rather to show, if possible, the pathological relation of the parts and the most frequent original causes. To recapitulate then:

Catarrhal conditions of the nose cause ear disease by producing hyperæmia in the pharynx and by extension of inflammation. Hypertrophy of the nasal tissue causes it by entertaining congestion, by irritation, and by diverting air from the Eustachian tubes. Muco-purulent catarrh of the naso-pharynx very frequently causes it by extension. According to Woaks, in 95 per cent. of all cases of post-nasal catarrh the hearing is affected. Hypertrophy of the pharyngeal tonsil usually causes it by occlusion of the tube mouths and by compressing the venous plexus pharyngeus. Finally, chronic inflammation of the tonsils of the fauces may cause it and extertain it by constantly irritating the adjacent tissue, and when hypertrophied may contribute greatly to the congestion about the tube mouth by pressure.

From these facts the necessity of timely and vigorous treatment of catarrhal conditions of the nose and pharynx as a preventive to the development of ear disease is obvious. When, however, hypertrophy is found to have already developed, and especially when the ear is already involved, no time can be lost with topical treatment, but the various surgical procedures for its removal must be resorted to at once. In my own limited experience I have found the most effective method of reducing œdema and soft hypertrophy of the turbinated bodies, a number of deep linear incisions with the cutting edge of the cautery knife along the whole length of the turbinated bodies; by this procedure a number of the cavernous spaces are destroyed, the venous stasis greatly diminished, and there is left upon the surface the least possible amount of cicatricial tissue. From the flat application of the cautery I have had one or two disagreeable experiences. By actually burning away or causing to slough a larger area of the surface, the impediment is easily removed and free respiration is restored; but instead of a thoroughly lubricated surface, over which the never-ceasing current of air is passing, there remains an extensive cicatrix upon which inspicated mucus and dry crusts collect, and are extremely annoying to the patient. For the removal of denser hypertrophies, the cautery loop has proven much more satisfactory in my hands than the Jarvis snare; in attempting to remove the bulk of the hypertrophy at once with the latter, I found it very difficult to adjust the wire, and the operation was slow and painful. Where the hypertrophy is extensive, I prefer to remove the anterior part with the hot loop at the first sitting, leaving the posterior part more accessible for a second operation. In a recent case in which it proved very difficult to catch the anterior portion of the body alone in the loop, I severed the front part of the hypertrophied mass from the side wall of the nares for a distance of three-fourths of an inch with a fine saw; the platinum loop was then easily passed around it, carried as far back as possible, and the operation quickly completed with very little hemorrhage and almost without pain. Convexities and hyperostoses of the septum, which frequently contribute greatly to the narrowing of the lumen, I have removed with the saw and chisel quite satisfactorily. With fracturing of the septum I have had no experience.

There exists perhaps no condition which is treated with more gratifying results to both physician and patient than a well developed case of vegetations of the pharynx accompanying retraction of the drum and deafness, of even two or three years' standing; the stupid expression of the face, the snoring and sniffling, the nasal voice, and frequently the general debility, quickly vanish after the operation, and the hearing is usually completely restored. As an illustration of the latter fact, deafness accompanied Trautman's 150 cases eighty-seven times, and in all but two of these the hearing was restored to its normal condition, though in a number of them it had been deficient for upwards of seven years. Of the various instruments for the removal of these growths I greatly prefer Hartmann's curette, used after a liberal application of cocaine, with the patient in the sitting position. With it the growths are removed *en masse*, neither assistant nor a general anæsthetic being necessary, and if the curetting is always done from the side wall of the pharynx towards the medium line, it is almost impossible to harm the adjacent parts. More or less pain, however, accompanies the operation, and if the patient resists or is timid and delicate, I resort to the more tedious operation with pharyngeal spoon-forceps, gag and ether.

A digital examination, which is not difficult but must be carefully carried out according to rule, I always resort to if a good view of the growths is not obtained by posterior rhinoscopy. With a little practice they may in this way be easily recognized and quite accurately located.

Chronically enlarged tonsils of the fauces I always remove—usually with that best of all tonsillitomes, originally devised by Mackenzie. Firm pressure with this instrument forces the pillars back and the body of the tonsil through the fenestra, so that not a small slice, but, as those who are in the habit of using this instrument know, by far the greater part of the hypertrophied tonsil—at least two-thirds of it—is removed by the operation, and it is not uncommon for it to present the appearance of having been enucleated. If the tonsillitome is declined or is impracticable, I reduce them with the galvano-cautery, which is accomplished with but little pain, in about a dozen sittings.

That the tonsils of the fauces may atrophy in later years, I believe to be a matter of entirely secondary consideration, since they may constitute, during the critical periods of childhood and youth, in greater or less degree, a predisposing cause of various infectious diseases, and since, by their presence, they not infrequently contribute to seriously damage the organ of hearing, which damage, at the age of puberty, is haply beyond all hope of repair.

It is, then, finally, the object of this paper to urge:

1. The efficient treatment of catarrhal conditions of the nose and pharynx as a preventative of ear disease.
2. The prompt reduction of all hypertrophies, either in the nose, pharynx or tonsils of the fauces, whenever encountered. [For discussion see p. 94.]

Unalterable Iodide of Potassium Ointment.—A writer in the *Gior. Farm. Trent.* gives the following: Iodide of potassium, white Venice soap, distilled water, of each 100; glycerine 600; fresh or benzoinated lard 300. Dissolve the iodide in the water (using a water-bath) and the soap; add the glycerine, and afterward the lard. As soon as the lard has melted stir rapidly and continually, and stand the dish in cold water.

Society Reports.

ACADEMY OF MEDICINE.

OFFICIAL REPORT.

Meeting of June 17, 1889.

The President, Wm. Judkins, M.D., in the Chair.

G. A. Fackler, M.D., Secretary.

Dr. Hall presented a pair of pus tubes and related the case and operation for

Pyosalpinx.

The patient was a woman thirty-one years of age, and was married nine years ago. She separated from her husband nine weeks after marriage because he had gonorrhœa. He had infected her, and she recovered within a few months. Since then she suffered only a few days about her menstrual period. She rarely called upon a physician for the pelvic tenderness. She was not subjected to any special treatment until nine months ago, when she had a sharp attack of peritonitis, which confined her to bed for four to five weeks. During and since that attack she has been under medical care constantly. Local and constitutional treatment was adopted; electricity, massage, tonics, and exercise tried with no good results; in fact, the case had been treated as one of fibroid of the uterus by the use of electricity for many weeks just previous to the time she came to the speaker.

When the patient came into the speaker's hands, a few days ago, a mass could be distinctly felt on each side, and a semi-fluctuating mass on the right side in Douglas' cul-de-sac.

The operation was performed to-day at the speaker's "Home." A mass consisting of a cyst containing pus was found behind the uterus. In trying to detach this the cyst burst and the pus escaped. The adhesions were easily separated, but in doing so, while raising the tube, the entire mass came away, which proved to be the right tube and contained fully four ounces of pus. Profuse hemorrhage resulted, which necessitated lengthening of the incision and stitching around the broad ligament. The left tube was also distended with pus and was removed.

The report and specimens plainly show that it is folly to expect local treatment, electricity, etc., to cure these cases. There was no fibroid in the uterus.

[At the time we go to press, four weeks after the operation, we are informed by the speaker that the patient made a rapid recovery, and went home on the twenty-fourth day after the operation.]

DR. EDWIN RICKETTS thought the reporter ought to be congratulated on his diagnosis. The case shows the utter fallacy of treating such cases with electricity, and demonstrates that the only proper treatment consists of total extirpation. The only means of diagnosis in such cases frequently is an exploratory incision.

DR. BOYLAN read a paper on

The Relation of Catarrhal Affections of the Upper Air Passages to Ear Disease.

[For paper see page 89.]

DISCUSSION.

DR. MAX THORNER said he considered the subject of vast importance. It could not be discussed in its entirety in the short time allotted, and he would limit himself to a few additional remarks. In regard to the mechanism of a connection between affections of the ear and naso-pharynx there were several possibilities. A simple chronic congestion might, of course, continue from the nose through the post-nasal space into the Eustachian tube and cause an inflammation of the ostium. This is sufficient to give rise to ear trouble, even if the affection be limited to the Eustachian tube. In many cases, by contiguity, the middle ear would be affected. There is always a hypertrophic condition of the mucosa in the beginning, which may lead later on, to atrophic changes in the tube and middle ear, which eventually would result in that disastrous condition of otitis media cat. chron., or the sclerosis of the middle ear of Gruber.

In cases where the nasal fossæ are obstructed, either by hypertrophy of the mucosa, or by tumors, denudation of the septum, etc., there is among other causes the insufficient aeration of the naso-pharyngeal cavity of great importance. The obstruction of the nose will naturally hinder the free passage of the air through that organ. There is consequently an exhaustion of air in the naso-pharynx, and, at the same time, the air in the tympanic cavity is rarefied. Venous congestion follows this condition, which becomes chronic if the obstruction be not removed. The patient, in order to avoid mouth breathing, breathes more forcibly through his nose, and this increases the trouble. In such cases we find mostly more or less swelling of the mucosa lining the Eustachian tube; the drum is depressed, and the patient begins to complain of fulness in the ear, difficulty in hearing, and, sometimes, noises in the ears.

The speaker did not think it necessary for adenoid vegetations to cover the mouth of the Eustachian tube in order to produce very troublesome ear symptoms. He had seen vegetations that were limited to the median line of the pharyngeal vault cause most distressing ear symptoms without touching the ostium of the tube. It is therefore absolutely necessary, in all cases of ear trouble, to examine the naso-pharynx carefully with the aid of the rhinoscope. There are quite a number of instructive cases reported where the neglect of this precaution caused delay in curing ear affections.

Another cause of trouble is simple reflex action. Woakes, of London, and others have shown that the extensive connection between the nervous supply of the ear and throat brings the ear into sympathetic relationship with distant parts of the body. Hence irritation in one will manifest itself in symptoms in the other. In this connection may be mentioned the well-known fact that oral irritation from decayed teeth, periostitis of the gums, etc., is frequently the cause of persistent ear ache, and even of purulent inflammation of the middle ear.

In regard to the treatment he agreed fully with the essayist. A naso-pharyngeal catarrh must be cured, obstructions in the nose or naso-pharynx be removed by any of the well-known methods. Referring to the removal of enlarged faucial tonsils, speaker said that he preferred the excision of the enlarged portion to the galvano-caustic operation. Tonsillotomy had been said to be dangerous on account of the hemorrhage following the operation. Speaker thought that a serious hemorrhage following the operation is extremely rare. It was almost only liable to occur when the arches of the palate were injured, or in patients who were bleeders, or where atheromatous changes had taken place. The use of the galvano-cautery is more or less painful and has to be repeated a number of times. It is, however, a very efficient method in decreasing the size of enlarged tonsils.

Dr. Boylan, in conclusion, remarked that he was glad that the gentleman who had spoken was in accord with the principles advocated in the paper, and as the hour was late he wished merely to refer very briefly to the treatment of the hypertrophied tonsil of the fauces. As regards their reduction with the galvano-cautery, he could only reiterate that he had found this procedure most satisfactory. Although he greatly preferred their removal at one short sitting, where the enlargement occurred in the antero-posterior diameter, with a flat surface, so that it was difficult to apply the tonsillotome, or when the patient was much opposed to the cutting, he had found the cautery an excellent substitute. The pain was usually not severe, and children stood it very well. He was always in favor of removing the hypertrophied tonsils, because, although there might be some question as to the extent to which they are capable of absorbing infectious matter, and it is extremely probable that such absorption does occur, it was surely a familiar fact that they were the cause of constantly recurring acute catarrhal attacks, and usually co-existed with similar conditions in the naso-pharynx, which finally lead to ear disease, and he believed that the physician who would leave a patient to outgrow such a condition would leave him to outgrow the resulting middle ear disease also.

Cerebral Alterations found in Two Cases of Chorea.—Flechsig, in four cases of pernicious chorea, combined with acute delirium, in patients between eighteen and twenty-two years old, found only the globus pallidus of the lenticular nucleus affected, on both sides of the brain. In the lymph-sheaths of the vessels, chiefly the capillaries, were found roundish bodies, the structure of which was disposed in layers, in some respects corresponding chemically to Recklinghausen's hyaline.—*Medical Recorder.*

PRINTING.—The Lancet-Clinic office
receives orders for all kinds
of printing.

LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION.

Meeting held Wednesday, June 24, 1888.

Sir Morell Mackenzie, President in the Chair.

Epithelioma(?) of Larynx in a Girl.

Mr. Lennox Browne showed some microscopical sections taken from the larynx of a young lady of eighteen years of age, who was supposed to be suffering from epithelioma. She had at first been thought to be suffering from laryngeal phthisis, but there were no other symptoms, and the condition had improved under treatment. The epiglottis was affected and the left vocal cord was quite hidden from view by an ulcerated and granulating growth on the left ventricular band. Small fragments of the tissues were submitted to two pathologists of eminence, who both declared the growth to be of an epithelial nature. Swallowing, and consequently nutrition, had not been affected, and as a result, there had been but slight loss of weight; but notwithstanding the microscopical appearance he was still uncertain as to the real nature of the case.

The President pointed out that it was quite unknown for a patient suffering from epithelioma to go on for two years without losing weight, as was the case with this patient.

Diseases of the Glandular Structures of the Pharynx and Naso-Pharynx.

The discussion on this subject was opened by a paper by Mr. Mark Hovell, who dealt with the relation of follicular to parenchymatous tonsillitis; he pointed out that in most cases there must be some special cause which determined the particular form of the inflammation. One fact which seemed to bear upon this was the peculiar tendency for either form of the disease to occur, in hospital practice, in groups, the prevailing form being at one time the follicular, and at others the parenchymatous form. This tendency, he observed, could hardly be attributed to atmospheric influence. He also asked why these affections only occurred on one side, or were more severe on one side than the other. He then discussed the relationship of throat affections, especially granular pharyngitis, with uterine or ovarian troubles. On the whole he was inclined to believe that no real relationship existed, the throat affections being merely secondary to deranged health. The question however still remained as to why granular pharyngitis should so frequently be found associated with ill-health in adults, and why particular deposits of adenoid tissue should be affected to the exclusion of others apparently more accessible to the effects of local change. With reference to the treatment of adenoid growths generally, he urged they should be removed whenever they gave rise to ill effects irrespective of the age of the patient. Small growths might be got away with the nail, but in most cases a cutting instrument was preferable, avoiding a too extended position of the neck. A general anæsthetic was to be preferred to cocaine. He called attention to a finger guard composed of a piece of rubber tubing, which was simple and efficient.

Dr. Wright Wilson read a paper on the same subject. He alluded to the vagueness of the symptoms of the presence of adenoid growths as described by aural surgeons. In 235 cases of this kind which had passed through his hands, 225 were ordinary cases, occurring in about equal proportion in both sexes; in the remainder, deafness was the only symptom. In one there was a mastoid abscess. He pointed out the importance of exploring the naso-pharynx in every case of deafness. In ten of his cases the growths were at the sides or back of the pharynx, instead of springing from the vault, as is most usual. He explores the cavity with the index finger, pushing the lip between the molar teeth to prevent the child biting, and then, if necessary, at once introduces the forceps, repeating the process if necessary. He then leaves the patient lying on the sofa for half an hour, with instructions to call him if there should be any bleeding. All forms of exercise are forbidden for the rest of the day. Neglect of this precaution led in one or two cases to serious hemorrhage. Of the 235 cases seen by him in 1886, 31 per cent. had concurrent disease of the middle ear. In rather more than 11.5 per cent. both tonsils were enlarged, and in about the same proportion only one tonsil was enlarged. In hospital practice, of 519 cases applying for disease of middle ear and nasal obstruction, 235 (45 per cent.) had post-nasal growths.

Dr. Warden said that he too had noticed the curious association of certain forms of throat disease with disorders of the reproductive organs in females, but he surmised that in many instances the immediate cause of the throat mischief was depraved health. He advocated the removal of adenoid growths as soon as they came under observation.

Mr. Lennox Browne objected to the term follicular tonsillitis, seeing that the crypts or lacunæ were primarily affected. He had some years since suggested that instead of follicular they should call it cryptic or lacunar tonsillitis. He pointed out that bilateral tonsillitis was usually due to unsanitary conditions, whereas the one-sided and alternating form was associated with climatic changes, or was the result of a diathesis. With respect to the alleged association of throat disease with disorders of the generative organs, he said some of it was quite new to him, though it was twelve years ago since he had drawn attention to the association of menstrual disturbance and ozæna, and he quoted a paper, written in 1883, by Dr. Mackenzie, of Baltimore, on "The Relationship of Diseases of the Sexual Organs to Intra-Nasal Disease." He called attention to the connection between diseases of the thyroid body and glandular diseases of the larynx, and especially to catarrh of the pharyngeal bursa. The subject of adenoid growths he considered nearly threshed out. He always operated by the finger nail, and never had serious hemorrhage, but he entirely agreed with the precautions urged by Dr. Wilson.

Dr. Hodgkinson advocated removing the growths at different sittings, and described an instrument which he had devised for the purpose of permitting the operator to ascertain beforehand what he was going to remove.

Dr. George Stoker advocated the removal of the growths as soon as discovered, whether at four weeks or even four days. He thought that scraping was an unsatisfactory method of dealing with the growths, and he was in favor of immediate removal under an anæsthetic. He said that he had always been enabled to control the hemorrhage by means of a solution of tannic acid.

Mr. Bond mentioned several cases of

inflammation of the pharyngeal bursa which he had met with, and asked whether they were common? He said that the subjects of hereditary syphilis seemed to be more liable than others to these growths, and then there was a marked tendency to recurrence.

Dr. Farquhar Matheson said that convulsions in children were often due to the irritation set up by the presence of adenoid growths in the post-nasal region. He advocated their removal by means of the finger-nail, which method he said was particularly useful in cases in which hearing was affected, because no instrument could be got round the angle. He thought that cocaine was often worse than useless. But he thought it was cruel to operate without an anæsthetic.

The President expressed a doubt as to whether there was any real connection between uterine disease and affections of the throat.

Mr. Hovell, in reply, said he thought it was unnecessary to remove the growths unless they gave rise to inconvenience. He pointed out that the position of the growth had nothing to do with the causation of the deafness, which was due to congestion or excessive secretion.

Discussion on "Gouty Sore Throat."

Sir Morell Mackenzie commenced by saying that in the vast majority of cases the cases of throat disease which were sent to him as of gouty origin were in reality nothing of the kind. He said he was only prepared to admit the influence of gout:—

1. When an acute throat affection suddenly disappeared upon the supervention of well-marked gouty manifestations elsewhere.
2. Obstinate affections of the throat in persons who were manifestly gouty, and those cases in which local treatment directed to the throat had failed to afford relief, but which yielded to constitutional treatment for gout.

He related a case of acute œdema of the uvula in a man, æt. 47, which disappeared upon the sudden development of gouty inflammation in the big toe. The patient said he had caught cold. The uvula was the shape and size of a muscatel grape, and it appeared necessary to puncture or amputate it. By the following day, however, the swelling had disappeared coincident with the development of gout in the toe.

Another case was that of a gentleman, æt. 50, who suffered from a chronic affection of the throat which had resisted all kinds of treatment. He was the subject of gouty enlargement of several joints of the fingers. He found great relaxation and elongation of the uvula, and swelling and marked congestion of the posterior pillar of the fauces. The pharynx and larynx were fairly healthy. No relief was afforded by local treatment, and ultimately the uvula was removed. Still no great benefit was derived. He then turned his attention to the treatment of the gouty condition, and gave him colchicum, purgatives and alkalies, and at the end of six weeks the congestion of the throat had entirely disappeared.

A third case was that of a lady, æt. 41, with a strong family history of gout, though the only evidence in her person was a slight deposit in the lobe of the left ear. The pharynx was found to be somewhat congested, and there was irregular enlargement of the capitula santorini and sub-adjacent tissues on both sides. The voice was weak. Both the ventricular bands were red, and they did not meet on attempted phonation. A rounded projection could be seen on the cartilaginous portion of the right vocal cord. This enlargement was touched with the galvanic cautery, and attempts made to remove it, but they failed. In this case constitutional treatment also failed to afford relief.

The next case was that of a gentleman who complained of hoarseness and slight dyspnœa. There was an angry-looking outgrowth on the left ventricular band, which later on ulcerated. It soon became deeply excavated and inspired great apprehension. The patient subsequently went to Paris and consulted Dr. Krishaber, who unhesitatingly pronounced it to be a case of cancer. The propriety of extirpation of the larynx was discussed, but in the meantime the patient consulted Prof. Von Langenbeck, who dissuaded him from having any operation performed on the ground of the risk and uncertainty involved. He then went to Wiesbaden in order to improve the general health, and within ten days he manifestly improved, and in three weeks he was completely cured. An examination of the larynx on his return proved the absence of anything abnormal.

Dr. Dundas Grant agreed that cases of gouty sore throat were rare, but he mentioned several cases in which he had observed its occurrence. He pointed out that it added another difficulty to diagnosis in cases of suspected cancer of the throat.

Dr. George Stoker related the case of a gentleman, who had consulted him complaining of chronic irritation of the throat. The patient had lived for many years in India, and had suffered from gouty cystitis. From time to time he had brought up a little blood, which alarmed him very much. On examination he found the larynx fairly healthy down to the vocal cords, but below that level there was a thickening or protrusion of the mucous membrane, which was smooth and occupied about a third of the lumen of the tube. Nothstanding a history of syphilis when young, iodide of potassium and mercury did not bring about any improvement in the condition, and he was obliged to diagnose between gout and cancer. The patient had another severe attack of hemorrhage, but the growth did not increase in size, and the body weight was maintained. The patient had been seen in the interim by an eminent laryngologist, and he had been pronounced to be suffering from cancer. He had omitted to mention that the thyroid gland was the seat of an indolent goitre. It was not possible to remove any portion of the growth for microscopical examination, but he was still inclined to regard it as due to gout, and not cancer, especially as in the interval he had consulted Dr. Garrod, who had prescribed an anti-gouty treatment.

Mr. Millican mentioned two cases, in which the throat symptoms had yielded to salicylate of lithium. He endorsed the remark by Dr. Stoker as to the necessity for distinguishing clearly between a gouty sore throat and a sore throat in a gouty person.

Mr. M. Hunt read a paper on

Lupus of the Throat and Nose,

Pointing out the difficulty of diagnosing this condition, which, although rare, was still met with in a certain number of instances.

The President said it was quite exceptional for such cases to come under his notice, and they were rarely met with unless specially searched for in the practice of skin specialists.

Dr. Hodgkinson mentioned a case in which obstinate ulceration of the lower lip was suspected to be lupus, but turned out to be tubercular.

Dr. Dundas Grant alluded to the very excellent paper on the subject by Mr. Lennox Browne, and mentioned two cases which had recently come under his notice in the diagnosis of which he had been very greatly assisted by the information therein contained. He pointed out that tolerance of manipulation was a sign of great diagnostic value. He effected a cure in one instance by thoroughly scraping the ulcerated surface and daily applying a sixty per cent. solution of lactic acid. He remarked that he had recently had occasion to examine the larynx of two lepers, in whom the appearances strikingly resembled those of lupus.

Prof. Collier demonstrated by dissections and diagrams the existence of a hyo-epiglottic membrane.

Sutures and Ligatures in Abdominal Section.—Authorities are much divided as to the best material for sutures applied to the abdominal walls, and to intra-peritoneal structures in abdominal section. The subject is most important in regard to the Sänger-Leopold Cæsarean section, where a very large number of sutures are applied to the uterine wound, and cut short, the uterus being replaced in the abdominal cavity. Dr. Thomson, of Dorpat, has published in the *Centralblatt für Gynäkologie*, June 15th, a series of experiments intended to throw more light on the suture question. These experiments were similar to Spiegelberg and Waldeyer's, carried out many years ago, to ascertain the fate of sutures applied to the cornu of the uterus in bitches, when the relative merits of the intra- and extra-peritoneal treatment of the ovarian pedicle were undecided. Dr. Thomson rejected silver as an unabsorbable material, and used for his experiments carbolized catgut, chromic gut, silk, and silkworm gut. All these suture materials were carefully sterilized, and, as much as possible, of the same thickness. As the experiments chiefly bore upon the use of sutures in Cæsarean section, Dr. Thomson chose for experiment rabbits, cats, and bitches that had just given birth to young. An incision, a few centimètres in length, was made in the right and also the left uterine cornu, and united again by suture, a different material being employed on opposite sides in each case. The omentum and the abdominal wound were also sutured, in order to test the possibly different fate of sutures according as they were embedded in those structures or in the uterus. It was found that there was little or no difference. At different intervals of time the subjects were killed and the sutures inspected. Carbolized gut was found to undergo complete absorption in seventeen days, little but the knots remaining at the end of ten days. Chromic gut remained quite unabsorbed at the end of seventeen, fifty, and even sixty-four days, the portions projecting freely into the peritoneal cavity being more or less covered with membrane. At the end of fourteen days the silk threads were found to be loosened, but intact; in fifty days partial absorption had taken place; in sixty-four days only a few small traces of the silk could be detected. Silk-worm gut underwent no change; at the end of sixty-four days it remained intact, its sharp ends projecting into the peritoneum. From the above experiments Dr. Thomson concludes that, for Cæsarean section at least, silk is the best and safest material for suture, since it can be thoroughly sterilized, and undergoes sure but not rapid absorption. Chromic gut, silk-worm gut, and silver are bad materials, being unabsorbable. Carbolized catgut is unsafe, as it is speedily absorbed.

VON ESMARCH ON THE DISINFECTING ACTION OF STEAM.—According to some new researches made by Von Esmarch on the action of steam as a disinfectant, it would appear that the effects in relation to the destruction of bacteria depend not so much upon the temperature as upon the degree of saturation of the steam. If there is air in it, the power of destroying organic germs is very much diminished. Thus, in experimenting on the spores of malignant pustule, Von Esmarch found that, while superheated steam which was not in a condition of saturation at a temperature of 120° C. was unable to destroy the spores in half an hour, saturated steam at 100° C. destroyed them in from five to ten minutes.—*Lancet.*

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EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, July 27, 1889.

The Week.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The Mississippi Valley Medical Association will hold its next meeting at Evansville, Indiana, September 10, 11, and 12.

This society is an outgrowth of a district and tri-State organization that assumed almost national proportions, and took the present name as an indication of its habitat.

Notwithstanding the fact that many of its members are located in malarious districts, the papers read and the discussions thereon have not as yet indicated a lack of grey matter or shallowness of the sulci in the brains of the Mississippi Valley Medical Association's members. For a series of years the papers read and discussions have been so valuable as to compare favorably with those of specialty organizations, where men are supposed to breathe in a supersaturated scientific atmosphere.

We would not have our readers infer that we regard malaria as either tonic, exhilarating or stimulant in its properties, but we would have them to know that the great Mississippi Valley, with its numerous tributaries, is far from being altogether malarious, and in those localities where it is most prevalent there will be found some of the most active practitioners of the healing art—men whose work ranks with the foremost of our age.

Last year the Mississippi Valley Medical Association met in St. Louis. The attendance was large, and the entire three days were scarcely long enough to get through with the papers announced and their discussion. The Chairman of the Committee of Arrangements, Dr. Owen, of Evansville, already at this early date announces that the programme promises a grand and successful meeting. The Western railroads are liberal in their rates, and the officers of the Association have gumption enough to know how to secure the most favorable there is going.

Dr. Geo. J. Cook, of Indianapolis, is President of the Association this year, which not only guarantees an excellent presiding officer but the support of a great host of personal friends. Nor should Ohio be backward in furnishing her quota, and we know Missouri, Illinois, Kentucky and Iowa will be largely represented.

Evansville is the metropolis of a large section of a rich and prosperous part of the Ohio Valley. The city itself is fairly beautiful, and is amply provided with hotel and other accommodations. The river and railroads furnish all needed facilities for access; while the mere mention that Dr. A. M. Owen is Chairman of the Committee of Arrangements is sufficient to indicate that members of the Association who attend the ensuing meeting will find all their wants anticipated. Moreover, they will find Evansville a real good place to go to in order to have a real good time.

Far-Fetched.—If you feel mad when some rude person runs into you in the street, how must you feel when a locomotor ataxia.—*N. Y. Commercial Advertiser.*

THE EDEN PARK RESERVOIR.

Some weeks ago we took occasion to call the attention of the city authorities to the menace of this large body of water, and we suggested that the Board of Public Affairs take steps to have all the property between the Reservoir and the Ohio River condemned and every habitation removed from the ground so condemned, and that the Reservoir walls be yet further strengthened. We are not an unnecessary alarmist in this matter, but the situation demands attention long before a dreaded calamity shall throw a city into mourning. We are glad to see that the daily press also demands greater provision against a possible giving way of a badly engineered and constructed retaining wall.

A Matter for the New Administration to Look to.—Fond mother: "Doctor, what is the matter with my little son?"

Doctor: "Well, Madam, I should say it is some foreign body in his stomach."

Mother: "Oh dear! those horrid Irish potatoes! I will tell my grocery man that he positively must furnish us some American potatoes.—*Daniel's Texas Medical Journal.*

Neurotic Poetry.—Walt Whitman, it is related, was called upon the other day by a young man with a large manuscript, which the visitor exhibited, remarking, "Mr. Whitman, I should like to read you my drama and get your opinion of its merits." "No; I thank you," responded the good gray poet, "I've been paralyzed once." So was the young man forthwith. —*Ledger.*

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations.
Leonard Freeman, M.D.,
J. C. Oliver, M.D.,
Otis L. Cameron, M.D.,
F. O. Marsh, M.D.,
Curators and Microscopists.

AN INTERNATIONAL COURTESY.

The following handsome tribute to our former townsman is from the *British Medical Journal* of July 6.

Dr. Billings, the accomplished American physician, whose address at the International Medical Congress in London excited much admiration, and whose works are well known and greatly esteemed by all of us, has recently passed through London—where he has been the guest for a few days of Dr. Ord—on his way to Oxford, to receive there the distinction of an honorary degree in law at the annual encænia. Being charged with the preparation of the forthcoming census of the United States he could make but a brief stay, and is already on his way home, otherwise we might have hoped to have seen him at our Leeds meeting.

Few could have deserved this new honor better. Dr. Billings is still a comparatively young man when the work which he has done, the position which he fills, and the honors which he has obtained are considered. He was born in Indiana in the year 1838. He took his degree of M.A. at Miami University, Ohio, and the degree of M.D. at Cincinnati, Ohio, in the year 1860. In the next year the war of secession broke out, and he entered the Federal military service. His energy and abilities at once marked him as a man to whom serious responsibilities should be entrusted. He was Medical Inspector of the Army of the Potomac in 1863 and 1864. He served with the Federal army in the field, being present at the battle of Chancellorville and Gettysburg, and subsequently took part in General Grant's fighting in Virginia. His talent for organization found ample field in the development of the great field hospitals, with their thousands of wounded and sick. After the war he and others were occupied in creating that monumental record—the great *Medical and Surgical History of the War of the Rebellion.* This work could only be accomplished with the aid of the Government, and this was dispensed to Dr. Billings and his colleagues with a generosity which has enabled them to produce a work than which none other of like magnitude, completeness, and merit exists. It will prove for many years to come, as it has already proved, a treasure-house of information.

A work not less important, and perhaps more after his own heart, has been the making of the Army Medical Museum and Library at Washington. The museum is really a wonderful thing for its age, both from the quantity and quality of the material arranged in it. It has been now transferred from the old theater building in which Lincoln was murdered to the palatial structure on the shore of the Potomac, specially built for it under Dr. Billing's direction. Here, too, the wise liberality of the Government is displayed in the completeness of the arrangements and the great expenditure they have entailed. Here, too, are many rooms where, under the supervision of its head, much good work is being accomplished.

It is, we believe, not too much to say that the library of the Army Medical Department is the largest and most complete medical library in the world. It, likewise, owes its development to the fostering care of Dr. Billings. It contains not only all the best modern books and periodicals in every language, but a collection of the classic works of every kind connected with medical knowledge of our forefathers in scientific work. Not only is it free to everyone to enter, but to any part of the great United States books from this library are forwarded on application to any duly qualified man. The losses which this entails are stated to be infinitesimal. The crown has recently been placed on another great work fostered by Dr. Billings in the opening of the Johns Hopkins Hospital at Baltimore, built from his plans and under his supervision, an account of which he recently published. No expense has been spared in the successful attempt to make this the most perfect of modern hospitals.

Amid all this primary official work he has found time for other offices and for the production of books. He has been Vice-President of the National Board of Health. He had charge of the tenth census, bringing out a report in two large volumes. He has also charge of the vital and mortality and social statistics of cities for the approaching census of the United States.

With all this important occupation Dr. Billing's official rank is less high than is generally supposed in this country. He is Major and Lieutenant-Colonel and Surgeon in the United States Army.

His appearances in this country have

been such as to make his great power obvious. No one who heard him can readily forget his addresses at the International Congress in 1881, and at the meeting of the British Medical Association at Brighton in 1886. They were characterized by breadth of view, and by close and compact marshalling of facts—by appropriate and often humorous quotations and illustrations. They held large audiences in earnest attention from first to last.

Dr. Billings has also done great service to the whole of the medical profession by his *Index Medicus*, begun in 1879, and still in regular publication. He is now preparing a large dictionary of medical terms, in two volumes, which is to appear speedily.

With such a record, it is not to be wondered that the University of Oxford, wherein all that Dr. Billings has done is well known to Sir Henry Acland, should have deemed him worthy of the high honor of its D.C.L., thus adding his name to those of Owen, Alison, Brodie, Milne Edwards, Van der Hœven, Christison, Stokes, Jenner, Gross, Paget, Lister, Allen Thomson, William Farr, Simon, and others to whom she has given in the last few years her highest degree. Besides this honor, he already holds the honorary degrees of LL.D. Harvard, LL.D. Edinburgh, and M.D. Munich, and he is a member of the National Academy of Sciences in America, which may be in many respects compared to our Royal Society.

How various are the ways by which scientific medicine is being advanced is plain enough to our readers. It is pleasant think that the United States are advancing along the whole line of knowledge. It is of no small moment that Washington, but lately only a political capital, is becoming a centre of scientific biological effort, through the rapidly expanding National Museum, and the labors of Dr. Billings in the War Office. The probable effects cannot easily be overestimated. The problem of the future of the United States is one of the most interesting, as well as the newest, in the history of the human family. The modern appliances for material growth there seen have never in history been so rapidly developed, and we are glad that a firm grasp is likely to be taken by our American brethren of all of the circumstances that affect the progress of scientific, curative, and preventive medicine.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending July 20, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	1	..	...	..	...	..	...	..	...	..	...
2nd	...	..	...	..	...	..	...	..	...	..	...
3rd	...	1	...	..	...	..	3	..	...	..	...
4th	5	1	3	..	...	1	...	1	...	..	..
5th	4	1	...	..	3	..	...	..	...	..	...
6th	...	2	...	..	...	..	...	..	...	..	...
7th	1	..	...	..	...	..	...	..	...	..	...
8th	...	..	...	..	...	..	...	..	...	..	...
9th	...	..	...	..	...	..	...	..	...	..	..
10th	...	..	...	..	...	..	1	..	...	..	...
11th	5	..	...	..	...	..	...	..	...	..	...
12th	4	..	...	..	1	..	2	2	...	1	...
13th	4	..	...	..	...	..	4	..	...	..	...
14th	...	..	...	..	...	..	...	..	...	..	...
15th	1	..	...	..	...	..	...	..	...	..	...
16th	...	..	1	..	...	..	...	..	...	..	...
17th	...	..	1	..	...	..	...	..	...	..	...
18th	...	..	1	..	2	..	...	..	...	..	...
19th	...	..	...	..	...	..	...	..	...	..	...
20th	1	..	..	..	...	..	...	..	...	..	...
21st	2	1	...	..	...	..	...	..	...	..	...
22nd	...	..	1	..	...	..	...	1	...	..	...
23rd	...	..	...	..	...	..	...	..	...	..	...
24th	1	..	...	..	...	..	1	1	...	..	...
25th	...	..	...	..	...	..	...	..	...	..	...
26th	1	1	...	..	...	..	...	..	...	..	...
27th	3	..	...	..	...	..	...	..	...	..	...
28th	...	..	...	..	...	..	...	..	...	..	...
29th	1	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	4	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	..	...
Other public inst'ns	...	..	...	..	...	..	...	..	...	..	...
Marine H..	...	..	...	..	...	..	...	..	...	..	...
Totals.	34	7	7	..	6	1	15	5	...	1	...
Last week.	84	11	2	..	6	..	20	1	...	1	2

The following is the mortality report for the week ending July 20, 1889.

Cholera Morbus	1
Cholera Infantum	6
Cerebro-spinal Meningitis	1
Diarrhœa	3
Dysentery	1
Diphtheria	5
Entero-Colitis	2
Measles	7
Typhoid Fever	1
Whooping Cough	1
Other Zymotic Diseases	4—32
Cancer	4

Phthisis Pulmonalis	15	
Other Constitutional Diseases	6	—25
Apoplexy	3	
Bright's Disease	2	
Bronchitis	1	
Convulsions	11	
Heart Disease	2	
Liver Disease	3	
Peritonitis	1	
Pneumonia	7	
Other Local Diseases	24	—54
Old Age	1	
Premature Birth	3	
Other Developmental Diseases	13	—17
Accidental	9	
Unknown	1	—10
Deaths from all Causes		138
Annual death rate per 1000		22.08
Deaths for corresponding week in 1888		118
Deaths for corresponding week in 1887		189

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 44 observers (embracing 36 counties) show the following diseases to prevail for the week ending Friday noon, July 19, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.	REMARKS.
Diarrhœa	33	144	Diphtheria reported by observers at Elmore, Russelville, Rio Grande, and Louisville. Reported by health officers: Cincinnati, 5 deaths; Columbus, 3 cases; Middletown, 5 cases, 1 death; Painesville, 1 case. Scarlet Fever reported by observers at Holmesville, Jackson, and Kalida. Reported by health officers: Toledo, 2 cases; Piqua, 1 case; Columbus, 3 cases; Logan, 1 case; and Painesville, 10 cases. Typhoid Fever reported by observers at Rio Grande, Fidelity, Martin's Ferry, and Tranquility. Reported by health officers: Piqua, 6 cases; Middletown, 1 case; Cincinnati, 1 death.
Cholera Morbus	24	62	
Cholera Infantum	17	30	
Bronchitis, acute	15	18	
Rheumatism (acute)	13	17	
Tonsillitis	13	16	
Remittent Fever	12	21	
Dysentery	11	13	
Intermittent Fever	7	20	
Pleurisy	6	8	
Whooping Cough	5	10	
Erysipelas	5	6	
Pneumonia	5	6	
Consumption (Pul.)	5	5	
Typhoid Fever	4	11	
Typho-Mal. Fever	4	11	
Diphtheria	4	5	
Measles	3	10	
Scarlet Fever	3	6	
Puerperal Fever	3	3	
Cerebro-Spin. Men.	0	0	
Croup, membranous	0	0	

C. O. PROBST, M.D., Secretary.

Selected.

LITHIUM IN MINERAL WATERS.

By FRANK L. JAMES, Ph.D., M.D., OF ST. LOUIS.

[*St. Louis Med. and Surgical Jour.*]

I have before me, carefully preserved in petroleum, sealed in a fused glass tube, a shining, white metallic pea, resembling exactly, so far as looks go, a little globule of silver, removed by the assayer from the bottom of his crucible. That it is not silver, however, is manifest as soon as you lift the tube, for it apparently has no weight. It is in fact a button of metallic lithium, given to the writer just thirty years ago by Dr. Pierce B. Wilson, now of Baltimore, but then a student and assistant in Liebig's laboratory in Munich, Bavaria. Wilson had been a student under Bunsen in Heidelberg, and had come thence to Munich, bringing with him, among other rare chemicals and elements, this lump of lithium, one of the first ever obtained in its pure metallic state by his immortal master, Bunsen.

Forty-two years previously to this, or in 1817, Arfvedson, a student under Berzelius, in the course of an analysis of petalite, discovered an alkali of a new kind, to which he and his master gave the name of *lithia*, as significant of its origin. For a long time it was considered as one of the rarest of the rare elementary combinations, and the decomposition of the same into its constituent elements baffled the highest skill and ingenuity of the chemists. Berzelius, as early as 1824, mentioned its existence in the waters of various Bohemian mineral springs, but twenty years later, in 1843, Dr. Alexander Ure, in reporting, in the *Pharmaceutical Journal*, his experiments on the solubility of sodium urate in solution of lithium carbonate, stated that he had been compelled to abandon his experiments on account of the scarcity of the lithium salts. In 1855, Bunsen, assisted by Matthiessen, at last succeeded in obtaining the element lithium by decomposing the fused chloride by electrolysis, using a battery of four of his well-known cells, with carbon as the anode and a steel knitting needle as the cathode. As thus obtained, lithium was found to be a silvery white metal, the lightest of all yet discovered, having a specific gravity of only 0.58.

Three years later than this, Dr. A. B. Garrod "commenced the administration of lithium carbonate as an internal remedy, both in cases of uric acid diathesis connected with gravel and likewise in chronic gout and was much gratified at the results." "But the great bar to the free use of lithium salts in medicine has been their expense." (Gout and Rheumatic Gout, pp. 368, 369).

Bunsen and Kirchhoff, by means of spectral analysis, were meanwhile demonstrating the almost universality of the element, having found it "extensively diffused throughout the vegetable and animal kingdoms, in the water of the ocean and in a great many mineral springs, especially those issuing from the primary rocks, of which latter it is a constant constituent." But while thus widely distributed it occurred nowhere in great quantities save in the vast deposits of lipidolite (lithia-mica), discovered and known to exist in Bohemia and Saxony. From these deposits it is now being supplied in large quantities and at comparative low prices.

To the exhaustive and painstaking experiments of Dr. Garrod, more than to any other individual, are due the knowledge of the therapeutic properties of the salts of lithium and the favor with which they were at once received by the medical profession generally. The good results obtained by their use, unlike those claimed for many new remedies, were persistent, and from the time when the salts could first be obtained from pharmacists up to the present hour, they have not only maintained the excellent impression which they first produced, but have continued to win a well-deserved reputation for certainty of action in a wide and constantly increasing field of therapeutics.

No small amount of this immediate success was due to the perspicuity of Garrod in his directions for the use of the remedy. "The salts of lithia" says he (in "Gout and Rheumatic Gout," p. 368), "should be given in a freely diluted state either in a large quantity of plain water or, which is preferable, in aërated water, forming *lithia water*, and corresponding except in strength with the soda and potash waters now in general use."

Lithia is by far the most powerful antacid of all the alkalies. According to A. Goldammer "1 gram of its carbonic salt requires 27.02 cubic centimeters of normal acid for neutralization, while the sodium salt requires only 18.87 and the potassium salt but 14.47 cubic centimeters to attain the same end" (*Pharmaceutische Centralhalle*, 1885, p. 541). Hence the comparatively small dose which is required to neutralize or render alkaline a system in which strong acidity has prevailed, and hence too, one reason for its rapid action upon abnormal accumulations of uric acid or the urates in the blood, the other being the fact of its forming, unlike the other alkalies, a soluble salt with that acid.

It is to these qualities, and the widespread knowledge of them caused by the innumerable "papers" and "circulars" issued within the past fifteen years by interested parties, that is probably due an impression, which I find all but universal among practitioners and the laity, viz., that all mineral waters of which lithia is a constituent, no matter in how trifling a degree, must have a paramount effect upon the uric acid diathesis. Despite the long list of "lithia-springs" whose advertisements we find in the medical and secular journals of the day, the actual number, so far as I can find responsible analysis, of those containing upwards of 4 grains of lithium bicarbonate (equal to about 2.5 grains of the carbonate) to the gallon is but fifteen. Of these twelve are at Saratoga; one at Nashua, N. H.; one at Cuyahoga, O., and one (Bowden Springs) in Georgia. These run from 4.040 grains in the Bowden Spring, 4.260 in the Cuyahoga, and 6.89 in the Nashua, up to 11.447 in the "Hathorn" at Saratoga.

While on the subject of "contents" there are two points in regard to mineral water analysis to which I would call the attention of the medical profession, since they furnish an easy and unsuspected means by which the owners of mineral springs and the importers and purveyors of mineral waters are in the habit of largely increasing the ostensible proportion of any desirable constituent in the same and at the same time compromising with their consciences. I allude, first, to the habit of publishing the results of analysis in which the imperial gallon is taken as the collective unit, although the waters are bottled and sold in vessels which are fractions or multiples of the American standard gallon. Second, the estimation of saline contents in their crystalline, instead of their anhydrous condition.

As to the first trick of the trade, it owes its success to the fact that not one person in a hundred remembers on reading an analysis of this sort, that the imperial, or standard English gallon represents ten (10) pounds of pure water at 60°F., or 277.2 cubic inches, while the standard American gallon, the measure which at once occurs to us on hearing or seeing the word "gallon," is but eight (8) pounds of pure water at 60°F., or 231 cubic inches, and hence is but four-fifths of the former—a fact which does not at once occur to us even though the ingenious labeler may have stuck the abbreviation "imp." in front of the "gal.," and thus preserved a semblance of honesty.

The second trick is more deceptive, since the difference between the weight of anhydrous and crystalline salts is not a constant one, and while it may amount to more than a hundred per cent., there is no way of detecting it save by an actual examination of the water. This weighing the water of crystallization, and estimating it as a part of the salt is a trick recently detected by my friend Dr. Enno Sander, of St. Louis, in an imported Spanish aperient water, and at present I have no means of knowing to what extent it prevails.

If we apply the logic of arithmetic to some of the fifteen springs which I have mentioned above, the actual contents in carbonate of lithium will be largely reduced. Thus, the proprietors of the Nashua, N.H., springs (the "Londonderry Lithia") claim for one spring (the East) a content of 13.2 and for the other (the West) a content of 4.03 grains of lithium bicarbonate to the "imperial gallon." The waters are mixed before being filled into bottles, and hence the bottled liquid contains but 8.61 grains to the imperial gallon. Since the containers are fractions or multiples of the American gallon, to be strictly honest the statement should be made that each gallon contains 6.89 grains of the carbonate.

There are a large number of springs advertised as "lithia waters" in which the amount of the medicinal element is so small that they are practically valueless, though they are consumed in immense quantities. Some of them have not a trace of lithia. Dr. Karl Luedeking, chemist at Washington University of this city, reports as the result of an analysis of Buffalo Lithia Spring No. 2, that he could not find any of the element from which the spring takes its name!

The European lithium waters need not be considered in this paper, as I will not recall any of them that are imported into this country. I may, however, mention two of them as of general scientific interest. Phipson, (Cosmos, Vol. XXV. p. 415) records of a spring at Redrutte in Cornwall, that it contains 26.05 grains of chloride of lithium to the imperial gallon. This spring contains a total of 641.35 grains of solid matter to the gallon. It issues from the earth at a temperature of 122° F., and the flow is so great that were all the water utilized upwards of 800 pounds of chloride of lithium could be obtained every 24 hours.

Bunsen found 25.642 grains of chloride of lithium in the imperial gallon of water from the Murquelle at Baden-Baden, this amount being 9¾ per cent. of the total solid contents. Dr. Rueff, the attendant physician, when prescribing this water to patients who could not take a sufficient quantity of the same to successfully combat the disorders for which it was exhibited, was in the habit of adding to the water an amount of lithium carbonate equal to that of the chloride contained therein. The solution was readily effected by the free carbonic acid of the water, and thus the patient got a double dose of lithium salts without inconvenience (*Pharmaceutical Journal and Transactions*, Vol. iii., p. 377).

This proceeding recommends itself to every practical and reflecting physician. We have no patience, indeed, with that superstition which prates of the "God-given," "heaven-endowed" fountains of health, "medicines wrought in the laboratory of mother Nature"; nor with that fetichism which regards these springs as something beyond the power of man to imitate or improve upon. When we reflect that they are the product of a leaching process exerted by water in its subterraneous progress through mineral strata; that they are affected by uncontrollable influences (atmospheric precipitation, for instance) and as freely extract the noxious or indifferent elements as those valuable to health, we must regard them simply as any other product of nature, to be manipulated, purified, weakened or added to according to the dictates of human science and skill.

There are natural waters which have

excellent and even superlatively valuable properties, even when used as they issue from the earth, but I do not believe that there exists in the world to-day a mineral spring the medicinal value of which could not be enhanced (in other words that could not be improved upon) by the exercise of combined chemical and therapeutical knowledge.

If this be true of the best of them, what shall I say of the great mass of such springs, most of which have but one, or at most two of the characteristics of medicinal waters—they are wet and have a villainous taste! Garrod's smallest dose of lithium carbonate from which benefit was derived, was half a grain in one ounce of water. What benefit may we hope or expect from waters which do not contain that amount of salt to the gallon? Is it not far more rational to prescribe the remedy in its officinal form and trust to the skill of the pharmacist and the chemist to compound it by rules the results of which cannot vary?

In prescribing carbonate of lithium it is necessary to remember that it is not very soluble, and that it requires 100 parts of pure water for its complete solution at ordinary temperatures. This difficulty is easily overcome, however, if carbonated water be used, and not only is the solubility of the salt greatly enhanced but it is put into a form in which its therapeutic activity is increased, to say nothing of the generally more agreeable flavor of carbonated waters. The beneficial effects of lithium carbonate in such solution have been too frequently experienced by me not only in my practice, but in my own person in the treatment of arthritis and rheumatism for me to need authority for its use, but if such were wanting I could make reference to the writings and experiences of some of the most eminent practitioners of the past half century.

Since physiological chemistry has demonstrated that in gout there is an abnormal formation of sodium urate in the system and that the deposition of this is constantly effected in the joints and tissues during the tortures of the paroxysms of the disease which are particularly referred to under the name "gout," the administration of any salt of sodium which is especially liable to decomposition in the system (with the danger of formation of sodium urate) should be carefully avoided in the construction of any formula for exhibition in connection with lithium carbonate. We should seek rather for such adjuvants as will form soluble combinations with uric acid.

A trial of many formulæ in this direcion has resulted in the following combination which I strongly recommend from personal experience as to its benefits.

℞ Lithium bicarbonate......grs. xij.
Magnesium bicarbonate...grs. x.
Potassium bicarbonate.....grs. xvi.
Sodium chloride..........grs. x.
Carbonated water.........℥ xvj. M.

This may be taken almost ad libitum.

This is almost if not quite identical with a water manufactured and put upon the market in this city by Dr. Enno Sander under the name of "Garrod Spa" or Lithia water, and its effects have been all that could be desired.

The Amount of Albumen in Diet.—Medical men are in favor of the use of animal food in moderate quantity. But it is very difficult, physiologically speaking, to say what is a moderate quantity, and most men eat as much flesh meat as they feel inclined for, without any consideration of the kind. Another attempt to estimate accurately the albumen actually required for tissue-change has been made recently in the chemical laboratory of the Berlin Pathological Institute by Dr. Kumagawa, a native of Japan. Five series of experiments were made upon himself with the following diets—namely, one series with the usual Berlin diet, two with a mixed Japanese diet, and two with a purely vegetable diet—boiled rice. The results of feeding on the last diet are given in the *Centralb. f. d. med. Wiss.*, No. 12, 1889. The experimenter's age was 27, his weight 48 kilogrammes; and the problem was to ascertain the minimum albumen supply requisite to keep up that weight, other proximate foods being afforded in due quantity. Previous experiments showed that for this a diet sufficed which corresponded to 2,300 calorics, and which contained from 70 to 90 grams of albumen per diem. The rice diet afforded 2,500 calorics, but contained very little albumen, of which the daily supply was 50.5 grammes; of carbohydrates 569.83; the caloric value of the albumen was 6.3 per cent., of the carbohydrates 93.7 per cent. On this diet, there was actually a gain of albumen in the body of 5.884 grammes in nine days—that is, 173 grammes of flesh—and the body-weight increased 0.4 kilos. Thus it is shown that an adult may, upon a diet having less albumen than is destroyed in the fasting condition, not only preserve intact the nitrogenous equivalent (as also Hirschfeld's experiments have proved), but may even increase the albumen deposited as flesh, if only the diet afford sufficient caloric. —*British Med. Jour.*

IRRIGATION OF THE PERITONEAL CAVITY.—Considerable difference of opinion exists among surgeons as to the advisability of using solutions containing various disinfectants for washing out the peritoneal cavity, in view of the fact that numerous deaths have been recorded as due, in all probability, to the use of such agents as corrosive sublimate, carbolic acid, etc. The absorbent powers of the peritoneum are well recognized, and account for the accidents which have followed the injections of solutions containing poisonous substances. So great is this absorbent power that the effects of the intra-peritoneal injection of a saline solution are equivalent to a veritable transfusion of blood. It has been remarked, however, that there is a limit to the amount of fluid which finds its way into the circulation by this means, and a point is soon reached after which no more is absorbed. Moreover, if a certain quantity of saline solution be introduced directly into the circulation, the absorbent power of the peritoneum is diminished *pari passu*, and if the quantity be considerable the peritoneum exudes, instead of the contrary. The accuracy of this observation has been verified by injecting poisonous solutions into the peritoneal cavity at a time when its absorbent powers have been overcome, and are, for the time being, in abeyance. No absorption of the poison took place, and no symptoms of intoxication followed. A series of experiments recently carried out in this direction show that, after being irrigated for a certain period of time, the peritoneum ceases to absorb, and poisonous substances fail to produce any effect. One is tempted to ask whether this fact might not be turned to useful account in operations involving that structure, by permitting the use of certain antiseptics the absorption of which would be attended with danger.—*Med. Press and Circular.*

PERSONAL DISINFECTION IN CONTAGIOUS DISEASES.

[*Therapeutic Gazette.*]

A point which appears to us of considerable practical value, and which has, doubtless, suggested itself to many physicians attending contagious diseases, and with almost equal certainty has but seldom been acted upon, is brought again to our attention through an article published in the *Medical Record* for June 22, 1889, by Dr. L. Mervin Maus, of the United States Army.

We can now scarcely deny the germ origin of such diseases as diphtheria, scarlet fever, and measles, and it is further well established that the spread of these diseases is due to a material contagion, which, in the case of scarlet fever, is almost confined to the desquamated particles of the epidermis. It is well established that the contagiousness of scarlet fever increases with the onset of desquamation, and it is surprising, since the contagious matter is in all probability located in these desquamated scales, that the disinfection of the skin of the patient has not become a routine practice in the treatment of this disease. Unfortunately, one of us is at present passing through an epidemic of scarlatina in his own family, and there the first thought was to endeavor to protect the other members of the family by a disinfection of the skin of the patient, employing the use of corrosive sublimate in 1 to 1000 solution. In all probability this process was not inaugurated sufficiently soon, and did not entirely prevent the spread of the disease. It is known that very close approach to a scarlatina patient, or more or less direct personal contact with the patient, is required for the spread of the disease. If we could only thoroughly disinfect all the surroundings of the patient, we might hope, then, to do away with the spread of the disease, besides greatly reducing the necessity for prolonged isolation. Dr. Maus publishes the following rules as a preventive measure for the extension of this disease, and states that his practice has been founded on personal experience, and so far has been entirely satisfactory. He even states that he believes that we can through the employment of this method of treatment ignore isolation, in cases of mild scarlet fever, and ordinarily permit patients to join the family circle in ten days to two weeks.

1. Sponge the patient thoroughly morning and evening with a tepid solution of corrosive sublimate, 1 to 4000, as soon as the eruption makes its appearance.

2. Wash the hair once daily with a solution of the corrosive sublimate, of the same strength, and also a solution of borax, 1 to 250.

3. Disinfect the urine, feces, and expectoration, also the discharge from the ears and nose, if there be any. A solution of the bichloride, 1 to 1000, is best for this purpose.

4. As soon as the patient is permitted to leave the bed have the body washed with warm water and soap, then sponged with the 1 to 4000 bichloride solution, wiped dry, and anointed with the following ointment:

℞.—Sodii biboratis;
Zinci oxidi, . aa ʒiv;
Ol. gaultheriæ, . ʒss;
Vaselini, . . ℥iv.

The hair should be thoroughly washed with the bichloride and borax solution.

5. The patient is then to be enveloped in fresh and clean clothes throughout, and allowed to leave the sick-room if his condition otherwise admits of it.

6. The bed-linen, soiled clothes, towels, etc., should be placed in a suitable sublimate solution and boiled, and the room well disinfected with sulphur. The sulphur candles are very convenient, and the disinfection should be repeated the second day, as the germs are very tenacious of life.

7. Require the nurse or attendant to keep the hair, face, and hands well disinfected during attendance, and to likewise make a complete change in his or her garments on date of the disinfection of the sick-room.

8. Continue the provisions of the third and fourth rules once daily until desquamation is complete.

MEAT POISON.—The following particulars of a recent series of remarkable cases of acute poisoning from eating unsound meat have been furnished by Mr. William Spiers, M.R.C.S., L.R.C.P., Cleator. On Sunday morning, June 23d, a number of young men visited St. Bees on the Cumberland coast for the purpose of bathing. After their dip they proceeded to the Seacote Hotel there, and were supplied with sandwiches consisting of roast meat, ham, and bread. No suspicion of anything being wrong with the meat occurred to them at the time, and some ate three sandwiches and others four. In the course of the afternoon several complained of feeling rather sick, but all were able to take tea at home, and nothing serious occurred till about twelve hours after eating the sandwiches, when four were seized with all the symptoms of English cholera, six others were attacked within twenty-four hours, while in three cases the symptoms did not set in till after about thirty hours. The symptoms varied in degree, but were the same in all—excessive vomiting and purging, accompanied by headache, severe pain in the stomach and bowels, intense thirst, and collapse, followed in three cases by high temperature and delirium. The vomited matter was green, and the motions dark brown in color. In all the cases improvement was first indicated by cessation of the vomiting and the tongue cleaning at the tip and edges, the diarrhœa persisting but becoming painless and less frequent; indeed, all are still having loose motions, but they are reduced to two or three in the twenty-four hours, as compared with every ten minutes in the severest cases. The treatment was varied in each case, consisting of mixtures containing (1) opium and bismuth; (2) opium, catechu, and chalk mixture; and (3) small doses of morphine with Gregory's powder, which answered well in relieving the sickness. The diet was restricted to boiled milk, cold, with soda-water, also rice-water and barley-water, to which a little brandy was added. After the vomiting had subsided, well boiled barley with milk, and boiled rice with milk, were added to the dietary, and several are now able to take a lightly boiled egg with tea. All these cases are now doing well, although two are still unable to leave their beds from weakness, while all show by their changed appearance that they have come through a serious illness. It is to be noted that several who had ham but no meat were unaffected, whereas all who had meat were attacked. The cow from which the meat was taken was killed on June 13th, and the piece (fourteen pounds of sirloin) roasted in an oven on June 21st. It was *underdone*, as blood flowed when the sandwiches were being cut on Sunday, 23d.

Several of the inmates of the hotel ate the meat and all were seized, some being dangerously ill. There was one fatal case, that of a woman, as to which, Dr. Braithwaite stated in his evidence at the inquest, that when sent for he found her complaining of sickness and diarrhœa, and very severe griping pains in the bowels, and cramp of the extremities, especially of the legs. She complained of intense thirst and was severely purged. Dr. Braithwaite did not think at that time that the symptoms were those of poisoning. She stated that she had had dinner of beef, potatoes, cauliflowers, and a very light tea. Later the same day there was no fresh symptoms. He was led to think death was due to blood-poisoning from the absorption of some putrescent animal matter. A verdict was given in accordance with the medical opinion.—*Brit. Med. Jour.*

THF PREVENTION OF THE SPREAD OF CONSUMPTION.—The following rules to be observed for the prevention of the spread of consumption were approved last July 9th by the Health Department of New York City, and ten thousand copies were ordered to be printed for public distribution.

Pulmonary tuberculosis (consumption) is directly communicated from one person to another. The germ of the disease exists in the expectoration of persons afflicted with it. The following extract from the report of the pathologists of the Health Department explains the means by which the disease may be transmitted:

"Tuberculosis is commonly produced in the lungs (which are the organs most frequently affected) by breathing air in which living germs are suspended as dust. The material which is coughed up, sometimes in large quantities, by persons suffering from consumption contains these germs often in enormous numbers.

This material when expectorated frequently lodges in places where it dries, as on the street, floors, carpets, handkerchiefs, etc. After drying in one way or another it is very apt to become pulverized and float in the air as dust."

By observing the following rules the danger of catching the disease will be reduced to a minimum:

1. Do not permit persons suspected to have consumption to spit on the floor or on cloths unless the latter be immediately burned. The spittle of persons suspected to have consumption should be caught in earthen or glass dishes containing the following solution: Corrosive sublimate, 1 part; water, 1000 parts.

2. Do not sleep in a room occupied by a person suspected of having consumption. The living rooms of a consumptive patient should have as little furniture as practicable. Hangings should be especially avoided. The use of carpets, rugs, etc., ought always to be avoided.

3. Do not fail to wash thoroughly the eating utensils of a person suspected of having consumption, as soon after eating as possible, using boiling water for the purpose.

4. Do not mingle the unwashed clothing of consumptive patients with similar clothing of other persons.

5. Do not fail to catch the bowel discharges of consumptive patients with diarrhœa in a vessel containing corrosive sublimate 1 part, water 1000 parts.

6. Do not fail to consult the family physician regarding the social relations of persons suffering from suspected consumption.

7. Do not permit mothers suspected of having consumption to nurse their offspring.

8. Household pets (animals or birds) are quite susceptible to tuberculosis; therefore do not expose them to persons afflicted with consumption; also, do not keep, but destroy at once, all household pets suspected of having consumption, otherwise they may give it to human beings.

9. Do not fail to cleanse thoroughly the floors, walls, and ceilings of the living and sleeping-rooms of persons suffering from consumption at least once in two weeks.—*Med. News.*

ACTION OF MERCURY ON THE INTESTINES.—Dr. H. Kraus reports that a man, aged thirty, after two injections of one decigramme of calomel, with a week's interval between the two, developed symptoms of mercuric poisoning. There was almost complete anuria and vomiting, and the stools were thin and bloody. Death took place in a few days. The post-mortem showed severe dysentery, perforation of the sigmoid flexure, and commencing peritonitis.—*Medical Recorder.*

CYSTOSCOPY IN GENERAL AND TUMORS OF THE BLADDER IN PARTICULAR.

[Vienna Corr. *Med. Press and Circular.*]

At the College of Physicians Dr. Grünfeld gave, as announced, his lecture on the above subject. He said that the ocular inspection of the bladder was first attempted by Désormeaux, 1865, by himself in 1874, while Nitze first used the platinum wire in 1879, and by the combined efforts of Nitze and Dittel, 1887, the Mignon lamp was produced. He showed the great advantages of this instrument, and the facilities it offered for discovering foreign bodies, ulcers, or polypi in that viscus by aid of the strong light and plane glass reflector. He showed how medicated substances might be introduced by its application, how light can be sufficiently provided for illuminating the bladder when endeavoring to catch any foreign body with the forceps, or applying the écraseur in order to remove a new growth. He then showed a woman who had polypi in the bladder which he diagnosed with this instrument. He related a case of carcinoma of the bladder which he removed in 1887 by its means through the natural passage. He said the objection had been raised to its use that this operation could be easily performed on a woman through the natural passage to the bladder, but was impossible in the male sex. This he considered a fallacious conclusion, as he had removed polypi from men by the same means as easily as he had from women by the natural passage.

In illustration he then related a case of a man, æt. 52, who for fourteen or fifteen years had complained of hæmaturia, which occurred periodically. On his first examination, July 5, 1885, he discovered, by the aid of this instrument, a number of polypi in the neck of the bladder near to the urethra. In July, 1888, the patient consented to undergo the operation of removing the new growths. In the first three sittings the more prominent parts were easily removed, but the urethra was still obstructed. On July 9, another attempt was made to remove the obstruction, but the wire, after it had cut away a hard portion of the hard growth, broke, leaving a considerable length as well as the growth fixed in the urethra. Not having suitable forceps at hand he postponed further interference at the time, but on his return no wire nor body could be found in the urethra, the *pars bulbose*, membrana and prostatica were quite free. The wire and the polypi were found in the bladder. On the following day about 12 ctm. of wire were removed from the bladder by means of the endoscopic forceps without any difficulty. Several days after a slight fever made its appearance, whereupon an effort was made to remove the remainder of the tumor, which was successfully accomplished after six sittings. An examination in April of the present year reveals a perfectly satisfactory result.

He related a second case suffering from asthma, loss of appetite and sleep. Through the kindness of Dr. Mittler, he examined the case with the electrical endoscope, and found a large tumor in the bladder. On February 5, of the present year, a small portion of the tumor was removed and microscopically examined, when it was found to be a sarcomatous polypus. On the following day a small portion came away, while urinating, which had evidently been left in owing to the narrowness of the instrument. On the 21st of March the operation was resumed, after cocainizing the urethra. On March 9, Voltolini's method of using a sponge was adopted, and the new growth washed off the wall of the bladder. The success was perfect. Small portions came away in the urine, but owing to cystitis the case is still under observation.

Prof. Dittel said that Dr. Grünfeld's instrument was inferior to the Nitze-Leiter instrument for inspection and diagnostic purposes, as the field of vision through his tube was limited to one centimetre in diameter at the very most, while that of Nitze-Leiter admitted of three and one-half centimetres. Again, if the tumor happened to lie on the anterior wall of the bladder or in the fundus, it was very difficult to grasp it with Grünfeld's instrument. As to the success of the operation he had no doubt, but he thought that few surgeons would undertake the operation with his instrument, as the lumen was so narrow.

Grünfeld, in reply, said he acknowledged the superiority of the Nitze-Leiter instrument, but he still contended that a polypus could be removed from the bladder by its use as easily as from the throat or ear.

Dittel said that there was no analogy between the laryngoscope and the endoscope.

METHOD IN THE TREATMENT OF EPILEPSY. — Kowalewsky, by a systematic course of treatment, has succeeded in making a number of cures of epilepsy in those in whom the attacks have been present less than ten years. The time required, which he usually divides into four semesters, is usually twenty-four months. He selects the form of bromide most suitable to the case, and during the first period (six months) gives a drachm of the salt in combination with three to five grains of the sodium iodide in the twenty-four hours. He administers the remedy, well diluted, in three equal doses, in the morning, before dinner, and at night. The dose is to be lessened or intermitted in case of adynamia. In female cases the treatment is stopped during the catamenia. The patient is allowed a good supporting diet, milk and vegetables to be preferred. During the last three months of the semester the patient is usually free from the attacks. During the second period the treatment is to be the same as that of the first. Before it is begun, however, there is an intermission of from two to six weeks, when the medicaments are withheld. During the third semester the sodium iodide is omitted, and doses of five to ten grains, morning and evening, of the bromides are given, the same regimen and diet being continued. In the last period he commences with five grains of the bromides per diem, gradually extending the time between the doses, so that toward the end the patient receives the five grains at varied intervals, even up to six days' intermission. The bromides are then entirely discontinued, and the patient receives small doses of trinitrine, the tincture of simulo being substituted in some cases.

In the beginning of the treatment alcohol must be absolutely excluded, even in medicine; attacks have been brought on by the administration of only a few drops. Tea is allowed in moderation, but coffee, chocolate, etc., must be dispensed with.

Should the case be complicated with tuberculosis, scrofula, syphilis, etc., it should receive treatment appropriate to the affection. Electricity in certain cases has proved a valuable adjuvant, but it is contra-indicated where there is any tendency toward cerebral hyperæmia.—*Polyclinic.*

THE ANTISEPTIC ACTION OF AMMONIA. —One of the facts now becoming abundantly substantiated with regard to the effect of organisms on the organic bodies on which they live (albuminoids, etc.) is that the products of bacterial activity tend to limit and finally to destroy the vitality of the growing organisms. Not only is this so with bacteria, but it is now well known, and can be readily demonstrated by experiment, that the products formed by digestive ferments from albuminoids or carbohydrates tend to "choke" ferment activity, which indeed revives when the products are removed, as, for example, by dialysis. Ammonia is one of the commonest products of putrefaction. It is formed not only by the action of putrefactive bacteria on albuminoids, but is a result of the decomposition of urea, which occurs from the action of the bacillus ureæ. Gottbrecht has lately tested the anti-fermentative action of ammonia. In his experiments he did not use the gas itself, but carbonate of ammonium, which, although less volatile than the gas, readily develops ammonia. It was found that a two per cent. solution of this salt delayed the decomposition of portions of fresh organs for nine days, a five per cent. solution for nineteen days, while a ten per cent. solution delayed it for sixteen days. In mixtures in which decomposition had already occurred ammonium carbonate added to the amount of five per cent. after a time killed the organisms; while a two and one-half per cent. admixture of the salt diminished their activity. On the other hand, it was found that smaller proportions of ammonium carbonate, one-fourth to one per cent., not only did not diminish, but actually increased the activity of the organisms, so that putrefaction became more rapid. This is only another example of a very large class of substances, which in small doses increase activity, in large doses diminish it; many of the drugs which act on the heart have this action. It might be considered that the action of carbonate of ammonium on putrefactive changes was due to the state of alkalinity produced in the liquid; but that this is not so is shown by the fact that sodium carbonate added to the same degree of alkalinity does not possess any anti-putrefactive action.—*British Med. Journal.*

GASTRIC CANCER AND ULCER OF THE STOMACH:

A NEW DIAGNOSTIC SIGN FOR THE DIFFERENTIAL DIAGNOSIS.

[*Therapeutic Gazette.*]

The differential diagnosis between cancer and ulcer of the stomach is frequently obscured by the greatest difficulties. There is no pathognomonic sign which in any given case can positively establish the existence of the one or the other affection. In deciding as to the presence of cancer, the diagnosis is generally determined by the advanced age of the patient, the localization of the pain in the epigastrium, the interval elapsing between the ingestion of food and vomiting, the black coloration of the hæmatemesis, the gastric dilatation, the presence of the tumor or induration in the region of the epigastrium, the yellowish cachexia, the production of white, painful œdema, the rapid progress of the disease.

On the other hand, in gastric ulcer the patients have not usually reached middle age; there is radiation of pain to vertebral column; vomiting follows almost immediately on the ingestion of food; vomited blood is brilliant red in hue; while dilatation of the stomach, epigastric induration, and especially cachexia, may be absent; and, finally, the progress of the disease is variable, and frequently remissions occur in the course of its evolution. Unfortunately, there are, however, numerous cases in which part of these signs are absent, or even in which both classes of symptoms may occur in the same patient. Numerous attempts have been made to determine some positive diagnostic sign. Thus, in 1886, Troisier noted the implication of the subclavicular ganglia in cases of cancer, and insisted upon the diagnostic importance of this symptom.

In 1887, Hayem called attention to the great excess over normal of the white blood-corpuscles of the blood in cases of cancer, while recently great stress has been laid upon the character of the acid in the gastric juice, it being claimed that in cancer of the stomach hydrochloric acid is no longer secreted, and is thus absent from the gastric juice. Nevertheless, all these special signs have met with contradiction.

A point proposed some time ago by Professor Rommelaere, of Brussels, and since emphasized by numerous others, consists in the observation that in malignant tumors, whatever may be their locality or morphological aspect, the amount of urea excreted in the urine gradually decreases, until, finally, it is not more than one hundred and eighty grains in twenty-four hours.

In a paper published in the *Gazette Hebdomadaire de Médecine et de Chirurgie*, May 10, 1889, Dr. Rauzier adopts this view, and he reports a case which presented the clinical picture of gastric cancer in which the diagnosis of gastric ulcer was based upon the continued presence of the normal amount of urea in the urine. The diagnosis was confirmed by the post-mortem examination. Dr. Rauzier concludes that, in cases where the clinical symptoms are insufficient to establish the differential diagnosis between cancer and ulcer of the stomach, without ignoring other methods of examination, such as the examination of the subclavicular glands, enumeration of the white blood-corpuscles, and the search for hydrychloric acid in the gastric juice, the estimation of the daily amount of urea excreted would give important assistance in making the diagnosis.

Of course the reduction of the excretion of urea is simply one form of expression of the depressed nutritive state of subjects suffering from cancer, in which there is faulty assimilation of nitrogenous food-principles, so that while increasing the albuminous ration must increase the amount of urea, less would be excreted by a cancerous subject than by a healthy individual on the same diet. We cannot believe that this sign of cancer would be of very early occurrence in this disease; it could not appear until the tissues have been largely depleted of their store of proteids, and until digestion and assimilation had been seriously disturbed. At first sight we are not disposed to admit that this sign would be absent in all cases of gastric ulcer, for, if the cause given be the correct one, it is inconceivable that it should not also be present in certain cases of advanced gastric ulcer. Further estimations of the amount of urea excreted in different wasting diseases are needed before this diagnostic point can have the value attributed to it by Dr. Rauzier.

Bibliography.

TRANSACTIONS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS, Vol. I, 1888.

If the number and character of contributions to this, the first volume of this young society, is an earnest of the working capacity of its members, the American Association of Obstetricians and Gynecologists has all reason to be proud of itself, and need not fear the laurels already won by its older rival, the American Gynecological Society. We must confess that we at first doubted the expediency of organizing a national association devoted to the cultivation of the science of Obstetrics and Gynecology when there was already a society of an identical character in the field. We have been informed, however, that certain restrictions in the latter, especially as regards limit of membership, have debarred many worthy specialists from entering this society, and, secondly, that it would be the object of the new association more particularly to cultivate a promotion of knowledge in Obstetrics, a department of Gynecological Science which had been rather neglected by the older rival society. According to the constitution, however, the object of the American Associan of Obstetricians and Gynecologists "shall be the cultivation and promotion of knowledge in whatever relates to Abdominal Surgery, Obstetrics and Gynecology," the scope of the two societies being exactly the same. We see that a resolution has already been offered to change its name to that of American Association of *Obstetricians* to distinguish it from the American *Gynecological* Society, which would clearly define the province of each. Be that as it may, we repeat that the contents of the present volume show good work in all three of the departments which this association takes within its scope.

We count not less than forty contributions, by nearly as many members (which also number forty), including the very able address of its president, our own esteemed Dr. W. H. Taylor, of this city. Besides the president, our friends Drs. Byron Stanton and Chas. A. L. Reed are also found among the list of members, and have each contributed a valuable paper, the former on the "Induction of Premature Labor," the latter on "Fibroid Tumors of the Abdominal Wall."

In a short review like the present it would be impossible to enter into the merits of each of the many papers presented; it will therefore suffice simply to allude to the most important. Abdominal Surgery has, as usual in similar productions of late, received the lion's share: "Drainage in Abdominal Surgery," by Joseph Price; "The Treatment of Suppurative Peritonitis," by W. H. Myers; "Laparotomy in Peritonitis," by E. E. Montgomery; "Double Ovariotomy during Pregnancy," by W. W. Potter, etc., are all valuable contributions to this subject.

A very pertinent production is also the address by Dr. A. Van der Veer, showing "The Relation of the Abdominal Surgeon to the Obstetrician and Gynecologist." Two very interesting contributions to the same subject are the papers by Drs. Ill and Reed on "Fibroid (Dermoid) Tumors of the Abdominal Walls." On account of the rarity of these cases these two papers will certainly be frequently quoted by later writers.

The most voluminous contribution of all is from the pen of our distinguished Boston *confrère*, Dr. Henry O. Marcy, entitled "The Perineum: its Anatomy, Physiology and Methods of Restoration after Injury." It is a complete monograph in itself, occupying about thirty pages and fully illustrated by ten beautiful full-page plates. Other papers on the same subject are: "Surgical Treatment for Lacerations of the Perineum and Pelvic Floor," by H. H. Wathen, M.D., and "A New Operation for the Repair of the Perineum," by Bernard Burns, M.D. Dr. Wathen has also contributed a paper on "Hysterectomy for Malignant Disease of the Uterus."

Contributions purely of an obstetrical nature are, besides the paper of Dr. Stanton already mentioned: "Is the Frequent Use of Forceps Abusive?" by Thomas Opie, M.D.; "A Contribution to the Study of the Reflex Neuroses of Pregnancy, etc.," by G. A. Moses, M.D.; "The Resuscitation of Asphyxiated New-born Infants by the Suspension Method," by L. Eliot, M.D.; "Hyaline Metamorphosis of the Placenta," by Sarah E. Post, M.D.; "Heart Failure in the Puerperium," by Thos. Lothrop, M.D.; and, finally, a number of papers (nine) on the "Pathology, Diagnosis and Treatment of Extra-Uterine Pregnancy," by Drs. Townsend, Price, Montgomery, Wathen, Baldy, Deaver, McMurtry, Byford and Van der Veer.

A foreign honorary member, Dr. A. Cordés, of Geneva, has contributed two papers, one on the "Treatment of Endometritis by Injections of Pure Nitric Acid," and the other on the "Treatment of Puerperal Eclampsia."

Notwithstanding the flood of literature in other places on electricity in gynecology, but one paper has been contributed to this society, namely, by Lapthorn Smith, M.D., M.R.C.S., on "Some Minute but Important Details in the Management of the Continuous Current in Gynecology."

Two very important papers, out of the usual order but of great value, are contributed by two eminent men belonging to other specialties, namely, "The Influence of the Sexual Life of Woman in the Etiology of Certain Diseases of the Ear," by Thomas E. McArdle, M.D., and "Diseases of the Skin Associated with Disorders of the Female Sexual Organs," by George H. Rohé, M.D. The Association is to be congratulated in securing the coöperation of two such eminent specialists presenting subjects of so great interest to gynecologists.

A few other papers on purely gynecological subjects remain yet to be mentioned: "Intra-Peritoneal Hæmatocele," by I. H. Scarff, M.D.; "Vaginal Tamponnement in the Treatment of Prolapsed Ovaries," by Walter P. Manton (a timely protest against the indiscriminate removal of these organs); "An Unusual Case of Sub-Serous Uterine Fibroid," by Hampton Eugene Hill, M.D.; "Treatment of Certain Cases of Salpingitis," by A. P. Clarke, M.D. (catheterization of the tubes as a substitute for extirpation); "Report of Sixty-three Cases of Alexander's Operation," By I. H. Kellogg, M.D.; "A Case of Removal of the Uterine Appendages—Double Fallopian Tube," by Frank A. Glasgow, M.D.; and "Diagnosis and Treatment of Uterine Fibroids," by Thos. J. Maxwell.

From this list it will be seen that scarcely any subject in Abdominal Surgery, Obstetrics and Gynecology has been overlooked. Some of the papers are of unusual excellence and unique in character. Too much praise cannot be bestowed upon the editor for the very excellent manner in which the volume has been gotten up. The illustrations, particularly those accompanying Dr. Marcy's paper on the Perineum and Dr. Ill's contribution on Dermoid Tumors of the Abdominal Walls, are superb.

We sincerely hope that at the next meeting of this Association, which will be held in our city (Cincinnati) on September 17, 18 and 19, this year, the excellent work may be continued, and that we shall have the pleasure of recording as valuable a collection of papers in the next volume as in the present. W.H.W.

NEW SKIN REMEDIES. — Schwimmer has lately, in the *Wiener medizinische Wochenschrift*, published the results he has obtained in certain skin diseases by the use of salol, oxynaphthoic acid, salicylate of mercury, and anthrarobin. Salol mixed with starch in the proportion of two to one he finds a very effective remedy in all forms of venereal sores and in the buboes resulting from them. Iodoform seems to have a more rapid action, but salol has the superiority of possessing no smell. The drug also appears useful in conditions of the mucous membrane of the bladder, when given internally in doses of forty-five to ninety grains distributed through the day. Oxynaphthoic acid did not give good results in venereal cases, acting as an irritant. In scabies, however, it did not irritate, and was an effective remedy. It may be mixed with chalk and soft soap, each ten per cent., with lard. It acted well also in the secondary eczema of scabies, and allayed itching in prurigo. Salicylate of mercury possesses no superiority over the ordinary remedies used in gonorrhœa and venereal sores. Given internally in doses of one and a half to two grains, it was an effective anti-syphilitic drug, although apt to cause irritation of the intestine and stomatitis. Anthrarobin was found to have no beneficial effect in psoriasis, but in herpes tonsurans, eczema marginatum, and pityriasis versicolor it acted well, being mixed with collodion in the strength of one in ten.—*British Med. Journal.*

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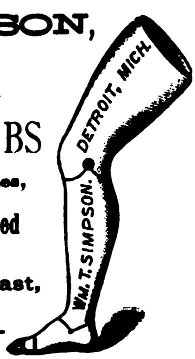
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CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, August 3, 1889. *WHOLE VOLUME LXII.*

Original Articles.

GASTRIC ULCER.

A Paper read before the Academy of Medicine, June 24, 1889,

By R. C. Longfellow, M.D.,
Professor of Dermatology, Cincinnati College of Medicine and Surgery.

Gastric ulcer, or stomach ulcer, is a common disease, being a purulent solution of continuity of surface, of one or more layers composing the stomach wall. Different names have been applied to this ulcer, such as ulcus simplex, ulcus perforans, ulcus chronicum, ulcus corrosivum, and ulcus rotundum.

ETIOLOGY.

Gastric ulcer is usually a chronic disease, appearing in younger to middle life, from the fifteenth to the thirty-fifth year, many cases appearing after the age of thirty-five. Women, especially young women, are more liable to this disease than men; perforation occurs oftener in women than men. Any derangement of the function of the gastric vessels, arrest of circulation at some point, thrombosis or embolism, are common causes of this ulcer. If the nutrient artery be blocked up, causing congestion or hyperæmia at some point, hemorrhagic infiltration, thromboses of the portal circulation, may also cause this ulcer. If the blood supply be suddenly cut off to some point, then a diminished amount of alkali would be contained in that part, thus giving greater corroding power to the gastric juice. Among other causes may be mentioned chlorosis, anæmia with amenorrhœa, long lactation, tuberculosis, the puerperal state, or any conditions of the system where neuroses play an important role.

PATHOLOGY.

The ulcus simplex, or simple stomach ulcer, has some peculiarities of its own, only simulated the nearest by those found in the upper part of the small intestine, there being no evidence of inflammation of its edges or base. This ulcer is usually round or oval in shape, and from its tendency to extend has been called ulcus perforans, or perforating ulcer. As this ulcer extends into the different layers of the stomach wall, the surface becomes contracted, giving the characteristic shape which is known as the funnel-shape, the larger opening being in the mucous surface, the smaller extending to the external surface of the stomach. The edges of the ulcer may be sloping; if the ulcer is of recent invasion its edges will be clean cut or of a punctured character, and not inflamed. The base of the ulcer may be congested, hyperæmic, or soft; in the chronic condition the floor of the ulcer is smooth, and of pale color. The average size of these ulcers is about that of a three-cent coin; some may be quite small, while others may extend for several inches. Usually only one ulcer is found; sometimes more than one, situated opposite each other. The pyloric region affords the usual location, on the posterior surface of the stomach, or near the lesser curvature. It is rare to find an ulcer on the anterior surface, and they are more dangerous, on account of their perforations. In very chronic conditions a large ulcer may take on the appearance of a crater, with the apex extending into the peritoneal layer, or in a perforation, as some deposits of granulations prevent complete perforation. In rare instances the mucous surface may not be affected, the ulcerative changes taking place underneath without much damage to the mucous coat. Post-mortems often reveal ulcers, either healed or healing, when death was caused by remote agents. The peritoneal surface is drawn in, puckered, when extensive ulceration has extended to the deep layers of the stomach wall. Stenosis of the pylorus may be caused by several smaller ulcers coalesced into a larger one, producing dilatation of the other portions of the stomach. Adhesions may form with surrounding tissues, interfering with the functions of the stomach to some degree. Fistulous communications of the stomach and adjacent organs may result; the ulcer may open into the duodenum, colon, pleural cavity, lungs, or gall-bladder. If the ulcer opens into the peritoneal cavity, peritonitis will quickly follow, even if death does not ensue. Death following perforation is sometimes attributed to shock or heart failure. The larger vessels of the stomach, being deeply situated, are not invaded by ulcer, unless almost to the point of perforation; if situated on the anterior surface of the stomach, it is more liable to allow its contents to escape into the abdominal cavity, because of limited inflammation and no adhesion to adjacent tissues or organs. Small arterioles are invaded by the ulcer. Relapses are of frequent occurrence, as the cicatricial tissue product is of low form and easily ulcerates from slight causes. In many cases of gastric ulcer there may exist a pulmonary disease, often tuberculosis. It is held by some writers that carcinoma of the stomach may appear at the sight of an old chronic ulcer. Gastric ulcers are found in from one and a half to two per cent. of persons dying from all causes. Cicatrices are found about three times as often as open ulcers. Climate also plays an important role, being less frequent in this country than in some parts of Europe. Atheroma, fatty degeneration, amyloid degeneration, diseased conditions of the vessels, varicose dilatations, embolism and thrombosis of smaller branches of gastric arteries, hemorrhages into the muscular wall of the stomach from injuries, ingestion of corrosive agents, are conditions usually found in chronic ulceration in any part of the stomach. Among the chief dangers to life is hemorrhage from a large artery, whose eroded surface will be found in the floor of the ulcer, if hæmatemesis has caused death. The ulcerated vessel will either be one of the arteries of the stomach, or adjacent vessel, and it has been known to perforate the portal vein.

SYMPTOMATOLOGY.

The most important symptoms of gastric ulcer are pain, indigestion, and emesis; hæmatemesis sometimes occurs in the early progress of the ulcer, although acute cases have been known lacking in all these symptoms. Pain is almost always a constant factor; a burning, gnawing at the stomach, more marked after eating, continues in front of, or below, the xiphoid appendix until the contents of the stomach either passes into the duodenum or emesis occurs. Pain following the ingestion of any food is a diagnostic sign of value; it is confined to a small place, localized; often there is a similar pain or burning in the back corresponding to the pain in front. Stimulating food or drink will cause the pain immediately; coming in contact with the eroded surface, gastric juice will also give rise to the burning, when any chemical change occurs. Circumscribed peritonitis may cause pain, independent of any food in the stomach, by adhesions forming from peritoneal inflammation. Sometimes pain may be absent for a day or a few days. Positions of the body affect the pain, as it is usually more when the patient is on the back, which can sometimes be relieved by a forward bending of the body; in some cases, when the ulcer is situated on the anterior surface of the stomach, the reverse position gives relief. Pain on pressure over the epigastrium is almost always present; if not pain, tenderness, confined to a small area, will be noticed. Vomiting is a common symptom, usually after eating; the time of its rejection depends on the character of the food, the more stimulating the sooner it will be vomited, followed then by relief of the pain and distress. The spitting up of mucus from the stomach sometimes occurs. Hæmatemesis usually occurs after eating; it is dark in color, due to the changing of hæmoglobin to hæmatin by the action of the gastric juice, if the emesis does not follow the hemorrhage immediately; if the emesis follows the hemorrhage, then the color of the blood will be arterial, having its alkaline reaction. The feces may contain blood, as hemorrhage may occur without vomiting, the blood or clots passing through the intestines. Constipation is a common symptom, usually more noticed when vomiting is frequent. Amenorrhœa is common, produced by anæmia, although it was held formerly that hemorrhage from the ulcer occurred vicariously in place of the menses, a theory now proven false. The character of the localized pain is peculiar; felt posteriorly in the region of the last dorsal or first lumbar vertebra, or under the angle of the scapula, it is of a boring from the anterior to the posterior, fixed, although pain may be felt in the chest radiating from the point of constant pain. Tenderness will be felt on pressure over the back behind the seat of pain, tight dress or corsets cannot be worn, all pressure of the internal organs against the painful region will be avoided. Sometimes a severe pain occurs, passing through the chest and abdomen; if the patient is neurotic, convulsions may occur, which will be relieved as soon as the stomach can be emptied. Vomiting may occur when the stomach is empty; some glairy mucus, tinged with mucus, may be ejected after much retching; if this condition continues some bile matter will be vomited. If the pain immediately follows the ingestion of food, the ulcer is near the cardiac region; if the ulcer is situated in the greater curvature, there may be but little vomiting, and if it occurs will not take place for probably an hour; if the ulcer is near the pylorus, the pain is great, and vomiting invariable, but does not take place until after considerable lapse of time from the ingestion of food. Vomiting of blood is present as a diagnostic symptom in about one-half the cases, and may occur at the time of the menses. The most common symptoms are pain after eating, followed by vomiting of food mixed with blood, vomiting of mucus and blood, then of blood itself. These symptoms combined are very valuable for diagnosis. The general nutrition may not be impaired in gastric ulcer, but in the large chronic ulcers some waste occurs, which the usual assimilation cannot supply. The tongue has no characteristic appearance—may be some coated, red at the tip and edges. Simple inspection of the vomited matter will determine the presence of blood; if not, the microscope will show blood corpuscles, if not too much disorganized by the chemical action of the gastric juices; the whole vomited mass may resemble coffee grounds in general appearance, or have a reddish-brown color.

DURATION—TERMINATION.

The duration of gastric ulcer is variable; the chronic form may continue for months or years, according to the changes occurring in the ulcer; may almost entirely heal up, then reopen, according to the character of food and habits of the patient. Sometimes the presence of an ulcer is hardly noticed, and may run a latent course, the patient only troubled by the ordinary distress from dyspepsia; again, during the course of the ulcer, pain and tenderness may come on at intervals, chill followed by some pyrexia, some symptoms of a localized peritonitis. A large number of cases result in complete recovery or the cure may only be partial; adhesions to surrounding organs or tissues may form, stenosis of the pylorus may occur, causing a gradual and insidious inanition of the body. Death may result from different causes, by perforation, causing peritonitis; inanition may result from pain, vomiting of food, lesions in other organs; or tuberculosis may supervene. Hemorrhage causes the death in a small per cent. of cases; in about twelve per cent. death is caused by perforation and resulting peritonitis, ushered in by chill, pyrexia, depression and shock, which is the forerunner of a fatal peritonitis.

DIAGNOSIS.

Diagnosis of gastric ulcer is easy when the typical symptoms are present; when absent it is sometimes a difficult matter. Gastric ulcer may be confounded with chronic gastric catarrh, gastralgia, colica hepatica, chlorosis or carcinoma of earlier stages. In many cases of chronic gastric catarrh the distress is removed upon ingestion of food; in gastric ulcer the reverse condition is present. In gastric catarrh there may be vomiting, but no vomiting of blood, as in gastric ulcer. Gastralgia may be present in both diseases, but otherwise not similar; as in gastric catarrh there is no pain after eating, and if so vomiting gives no relief. In hepatic colic the pain is relieved as soon as the calculus reaches the intestine, then usually icterus follows; in ulcer these symptoms are not present. During an attack of gall-stone there may be some vomiting of blood, but not much in quantity, due to congestion of the portal vessels, the stomach giving no distress after the attack is over. In carcinoma the presence of a tumor, age of patient, emaciation, cachexia, enlarged glands of the lymphatic system, vomiting of black masses, differ from the reddish-brown blood and clinical history of an ulcer. Considerable difficulty will be experienced in the differential diagnosis between chlorosis and amenorrhœa, from gastric ulcer; as in chlorotic patients, distress after eating, some emaciation, sometimes vicarious menstruation by the stomach, may be present. If the case is one of gastric ulcer, the low diet will improve the condition of the patient; if it is chlorosis, this treatment will only aggravate the symptoms, but if treated for chlorosis will improve.

PROGNOSIS.

Gastric ulcer, while a serious disease, is not by any means incurable; cure can be expected from favorable cases, the mortality being about fifteen per cent. After the cicatricial contraction of an ulcer, the symptoms of distress may continue to some degree, even after the ulcer has healed. The dangers from perforation and hemorrhage render the prognosis as serious in most cases. When cardiac lesions or tuberculosis is present, the prognosis is unfavorable. If perforation and hemorrhage do not occur, some cases may live many months, even if lesions in other organs co-exist.

TREATMENT.

Gastric ulcer requires two factors in its treatment: one to secure rest to the stomach, the other to relieve the pain and guard against hemorrhage. Rest to the stomach is best secured by rectal alimentation, or if any food is taken per os, should be reduced to the smallest amount, and should consist only of milk, if the stomach will retain it, which gives rest to the stomach, yet contains necessary ingredients to nourish the body. This diet should be given as soon as any probability of an ulcer occurs, one gill every three or four hours during waking. If the stomach will not retain milk, then it should have complete rest; rectal feeding can be resorted to, containing such ingredients as necessary. Hunger and feeding can be satisfied by rectal alimentation; fair nutrition of the body powers may be continued by this method for some time, held by some writers for an indefinite period. If milk gives sensation of heaviness or distress, it should then be diluted with lime water or seltzer water. In many cases the rectal alimentation should be given with the milk diet, as it enables repair to take place more rapidly by enriching the blood more quickly.

As the eroding condition was primarily caused by the solvent action of the gastric juice, it is desirable to reduce the acidity of the stomach and keep the surface of the ulcer clean. This object can be accomplished by the use of the siphon stomach tube, which most persons can learn to swallow without much exertion. The stomach should be washed out several times daily with lukewarm water containing a small amount of sodium bicarbonate, which gives very great relief from the pain and distress, care being exercised to avoid perforation by the tube. The use of alkaline mineral waters will give almost the same result, except the irrigation of the stomach; such waters as Vichy, Seltzer, or Arseniated Lithia may be used. Among the medicinal remedies to be used, arsenic is the most useful, given in small doses, preferably Fowler's solution, one to two drops three times daily after diet, if milk is given. Among other remedies, bismuth, from ten to fifteen grains, three or four times daily, with or without opium, which gives a coating to the ulcer, alleviates the pain and burning, also checks any fermentation that may take place in the gastric juice.

If there is much pain, morphine should be given by hypodermic injections, the deod. tincture of opium, or rectal suppositories containing the extract of opium, only used when the pain is severe enough to call for an anodyne. If the diet is properly regulated there will not be much pain. All saccharine or starch foods must be withheld, as they cause acid fermentation, which is very irritating to the ulcer, increases pain and vomiting. In some cases minute doses of cocaine is very useful; it can be combined with small doses of dilute hydrocyanic acid, which often gives decided relief. The writer has had very satisfactory results from the following combination:

℞.—Liq. potass. arsenit., . ʒi;
Tinc. opii deod., . ʒiiss;
Ac. hydrocyanici dil., ʒiss;
Aq. dist., q.s., ad . ℥iv.

M. sig.—One teaspoonful every three hours, after taking milk.

Vomiting may be controlled usually by lime-water, bismuth, cerium, or small pellets of ice; in obstinate cases, cold applied to the stomach or drop doses of chloroform will give relief.

If hemorrhage occurs, ice must be applied to the epigastrium, ergot by hypodermic method or per rectum given, some styptic should be administered, such as Monsel's solution or solution of chloride of iron. If perforation occurs, absolute rest, alimentation only by rectum must be given, the patient kept under the influence of opium. The regimen of diet should be continued for several weeks, until improvement to such a degree ensues to indicate the cicatrix well formed. Then the diet may be cautiously increased, allowing well-cooked rice, soft boiled eggs, tapioca, fish, dry toast, animal broths, etc.; afterwards carefully allowing a greater variety, but insisting on the regulation of diet for months to come. For some time all starches, saccharine foods, gravies, deserts, sweet potatoes, pastry, puddings, sweet wines, and malt liquors should be avoided. There is little reason to expect any remedies to promote cicatrization. Nitrate of silver, bismuth, and others have been used, but seemingly to no effect; probably only those remedies arresting peristaltic action of the stomach and reducing acidity are of any utility, regulation of diet being the remedy of greatest power.

115 West Ninth Street.

[For discussion see p. 122].

THE FIRST MATCHES.—In a conversation a few days ago with the Hon. John D. Caldwell, of Cincinnati, the following interesting facts were brought out. Prior to the year 1833 all the friction matches used in America were imported, chiefly from England. In the year above mentioned Thompson & Hoge, a drug firm in Zanesville, Ohio, in their line of business imported friction matches from London. Bill Thompson, as the senior member of the firm was usually called, had his curiosity aroused as to the make-up of the matches, and as a result he made an analysis of the business end of the match—not the stick—which enabled him to prepare a similar material; this material was mixed and triturated in a mortar by Mr. Caldwell, above referred to, who was then a young man of all work in the drug-store, and thus it is, that we see who it was that helped to raise Lucifer [matches] in this country. The sticks were made by Mr. Jas. Stewart. It may be that these facts are in the literature of the match, if the match has any literature, but they were new to us, as they probably will be to all match-scratchers, who go on firing away with them, neither knowing nor caring whence they came.—*Dental Register.*

ON BITTER WATERS.

A Paper read before the American Pharmaceutical Association,

By ENNO SANDER, PH. D.,
St. Louis.

On a cold day last winter I observed in my laboratory a considerable deposit in a bottle containing a 10-per-cent. solution of sodium sulphate, while a bottle of "Rubinat Condal" next to it had retained its limpidity, although, according to the analysis on its label, it contains 9·323 per cent. sodium sulphate, and so much of other salts as to increase its solid ingredients to a fraction over 10 per cent. Thinking that an accidental disturbance to the sodium sulphate bottle might have caused the deposition of the crystals, I tried to produce the same effect in the Rubinat by shaking it, but could not change its appearance in the slightest degree. After the determination of its specific gravity (which amounted to but 1.038, and indicated a solution of anhydrous sodium sulphate of only 4·3 per cent.), I came to the conclusion that this and other waters might need an examination, which was given, and I now offer the result of my investigations of some bitter waters in this paper.

The name "bitter water" has been adopted from the German, and is given to those strongly purgative waters which are impregnated with a large quantity of solid ingredients composed, more especially, of alkaline and earthy sulphates. The latter are accompanied occasionally by alkaline chlorides, but seldom by carbonic salts and free carbon dioxide. The presence of hydrogen sulphide is generally caused by a reduction of their sulphuric salts in contact with organic matter, which latter is either an original part of the composition of the water, or an accidental addition to the contents of the bottle, caused by careless cleansing. The co-existence of calcium and magnesium sulphate in these waters led Mitscherlich to attribute their presence to a double decomposition of calcium sulphate and magnesium carbonate, while others explain it by the action of decomposing pyrites upon talcose slates or other silicates containing magnesium. Thus have been formed in various places layers of salty crystalline masses, and not long ago I received from the northern part of

Arkansas an amorphous mass of salty appearance and bitter taste, which, after being dissolved in hot water and filtered, yielded from the first crystallization a considerable quantity of pure magnesium sulphate. It was accompanied by gypsum, iron, and silica, and no doubt strong bitter water could have been obtained there, if it had been dug for.

Bitter waters also frequently occur in beds of marl, which have been formed by the decomposition of rocks containing the elements necessary for the production of these waters, through the agency of atmospheric precipitations, which, penetrating into the soil, absorb its soluble substances. Such waters are consequently dependent upon atmospheric influences, and demonstrate it by the inconstancy of both their ingredients and their temperature. To this special class belong those waters procured from wells sunk into the ground, as, for instance, those near Buda-Pesth and in the northern part of Bohemia.

Bitter waters are limpid and devoid of color, the latter rarely reaching a pale amber. Their salty, bitter taste sticks to the tongue, and makes them very disagreeable and nauseous to the taste—qualities intensified by the absence of carbon dioxide.

There are many bitter springs and wells mentioned in the "Mineral Springs of the United States" (Bulletin of the United States Geological Survey by A. C. Peale, M.D.), but the composition, especially of those containing a minimum of from 50 to 100 grains of sulphate salts, is known of but a comparatively small number. They are distributed all over the country, but the fame of few has reached beyond their own neighborhoods, and, as far as my knowledge goes, none are used commercially like those European purgative waters so highly recommended by our secular and professional press.

The "Rubinat Condal," a Spanish purgative water, referred to in the outset of this paper, claims 100·56 parts of solid ingredients in 1,000 parts of water, almost all of which are sulphates, and with this array of figures proclaims that "this water is superior to any other water of the same kind in Spain or Europe."

It has long been the universal custom among chemists to calculate, in their anhydrous state, the solid ingredients or saline contents of any substance of which an analysis is made; and when for any reason this rule is violated and the crystalline form of a salt is reported, to mention the exact combination of the salt and water which go to make up the crystals so reported—a proceeding rendered necessary by the fact that some salts combine with varying equivalents of water, according to their different forms of crystallization. It must, therefore, be surmised that Dr. Canudas, of Salada, knew of this established custom when he rendered his report of the analysis of Rubinat Condal, and that every physician, pharmacist, and chemist—in short, everybody who is acquainted with the rules of chemical analysis—has presumed that the sodium sulphate and magnesium sulphate, both ingredients of the Rubinat Condal, were calculated in this analysis as anhydrous salts.

As mentioned before, the specific gravity of Rubinat Condal is 1·038, but, as its analysis claims over 10 per cent. of solid contents (of which 9·64 consist of magnesium and sodium sulphates), its specific gravity ought to approximate that of a 10-per-cent. solution of anhydrous sodium sulphate, or 1·092 (Storer's Dictionary of Solubilities, page 627). A specific gravity of 1·038 corresponds to a solution containing 4·3 per cent. of sodium sulphate, and to 9·75 per cent. of Glauber's salts (ibid.), and the evaporation of 100 cubic centimetres of Rubinat, which were taken from the bottle at a temperature of 60° F., yielded a residue of 4·531 grains of solid ingredients, which correspond almost precisely with the formula of the analysis, provided the water of crystallization be deducted from the figures expressing the quantities of the sulphate of sodium, magnesium, and calcium. The determination of the sulphuric acid confirmed this statement. Whether this water comes from a spring or a well, or is simply a filtered and bottled solution of a crude Glauber's salt, I have not been able to ascertain.

The "natural bitter water of Friederichshall" is obtained from a spring in Germany, which was known and used for manufacturing common salt as early as the twelfth century, and for epsom and Glauber's salts since the last century. It occurs in a bed of marl formed with sandstone, gypsum, and dolomite, belonging to the Keuper system. In former years a bitter water was bottled at the spring, which was produced by mixing the water from the old, weaker spring with that of a new and stronger artesian well, in such proportion as to give it a specific gravity of 1·022, and it was introduced by Dr. Bartenstein in 1842. The analysis of Justus Von Liebig, in 1847, by whom it was strongly recommended, increased its popularity, although it had to share it with the Kissingen bitter-water, the production of which in almost identical proportions was also recommended by Liebig. They both contain 25·294 parts of solid ingredients in 1,000 parts of water (Dr. O. Dirufsen, in *Balneotherapie*, 1876, page 144–146).

A stronger water than this must have been bottled previous to 1885, for the analysis of a sample taken from J. F. Heyl & Co., in Berlin, at that time showed 35·938 parts, while the water taken from the artesian well personally by Professor Dr. Oscar Liebreich, in 1885, is the strongest, and contains 61·396 parts of solids in 1,000 parts of water (*Zeitschrift fur Mineralwasser-Fabrication*, January, 1886, page 240). Since that time this strength has been kept up. I have obtained a similar sum total from my evaporations with a specific gravity of 1·042.

The marl beds of northern Bohemia consist of decomposed basalt and clingstone, gypsum, and carbonate of lime. Near the villages of Pullna, Saidschutz, and Seidlitz some forty to fifty wells have been sunk into the marl. They have a depth of about ten feet, and serve as receptacles for the atmospheric water which filters through the strata, and in so doing takes up the soluble constituents. For this reason there is a variation in the results of analyses of these waters which have been made at different times. Pullna contains 32·72, Saidschutz but 23·21, and Seidlitz only 16·4 parts of solids in 1,000 parts of water. The latter spring is noteworthy from having given its name to the well-known and popular Seidlitz powders, although they do not contain any of its ingredients. The use of these waters has become limited, and their importation has almost entirely ceased.

Where the bitter waters of Buda-Pesth, the various Hunyadis, Stephans, Victorias, Rakoczys, and some thirty more, are competing now in a hot struggle for ultimate superiority, there was but a large pond about forty years ago, on the banks of which crystals of sodium sulphate were frequently found. The plateau on which this pond existed was drained within the next ten years, and the Kelenfeld cultivated with great success. Wells then became a necessity, and on digging the first in 1863 a water of a salty and bitter taste was obtained, which, on trial, promptly manifested its superior medicinal properties. More wells were soon in order, and all that have been dug have produced waters of similar medicinal value. Although the strength and quantity of these waters depend upon conditions similar to those explained above, it seems that they are not so subject to irregularities in the amount of their solid ingredients as are other waters of the same class—a fact, perhaps, principally due to the imperviousness of the underlying strata. These wells have a depth of from fifteen to twenty feet, and yield more or less water, according to the season. That their constancy, especially that of the Hunyadi Janos, was maintained for a long time was shown by the similarity of four analyses, made by as many different chemists, during the period from 1863 to 1870. Their temperature, however, was not so uniform, and, according to the season, ranged from 45° F. in March, to 56° F. in September (Valentiner, *Balneotherapie*, 1876, page 148).

This constancy of the solids has not been so well maintained during later years. While Liebig's analysis in 1870 gave the sum total of solid ingredients as 35·055, R. W. Bunsen found an increase of about 10 per cent. in 1876, or 38·626 parts in 1,000. Whether this increase was due to natural causes or to certain manipulations of the proprietor, Mr. A. Saxlehner, may be a difficult question to decide, but it can not be denied that he was accused in 1877, by some former employes, of having tampered with the different wells, mixed their outputs, and attached to the bottles, which had been filled indiscriminately from this mixture, the label bearing the analysis of J. von Liebig for well No. 3. There are strict laws in Austria against such proceedings, which are rigidly enforced. Information in the form of affidavits to the foregoing effect reached the authorities, and the analysis of J. von Liebig, which used to grace the bottles with its bright scarlet letters, has since disappeared from the labels of Andreas Saxlehner's Hunyadi Janos mineral water. Meanwhile its solid contents seem to be still increasing; at least the last bottle that I examined contained water with 42·59 parts of solids in 1,000, and had a specific gravity of 1·033.

The use of bitter waters by persons who lead a sedentary life, and do not care to give up the pleasures of the table, has become almost universal; but the taste of these waters is abominable and nauseating. However, Professor Dr. R. Fresenius, the eminent chemist, in his opinion on Hunyadi Janos, has given a valuable hint in this direction. He says: "Although its content, of free and half combined carbon dioxide, as in all bitter waters, is not large by itself, it is not insignificant, and no doubt has a beneficial influence upon its taste."

Every one who has ever taken Hunyadi Janos knows that its taste is still far from pleasant, but the thought suggests itself that, if a small amount of carbon dioxide be of such benefit, how much more influential in this respect would a thorough carbonization be. There are very few pharmacists who have not had some disagreeable experience in the handling of imported bitter-waters, on account of deposits and rank odor, a fact which has induced some sagacious dealers to ask permission to draw the cork before delivering the bottle. All such inconveniences could be easily avoided by the recommendation and sale of carbonated artificial bitter waters, which, by their correctness, freshness, and comparatively fair taste, would quickly supersede the nauseating imported stuff. And it should be borne in mind that carbon dioxide is acknowledged to be an active tonic for the digestive organs, and that bitter waters impregnated with it will tonify and strengthen the intestines, while without its aid their prolonged use will weaken and prostrate them.

A FORMULA FOR APHTHOUS STOMATITIS.—(*L'Union Médicale*, June 15, 1889.)

℞.—Salicylate of soda, 20 parts.
Distilled water, 100 "
Dissolve.

In cases of aphthous stomatitis the inflamed parts should be painted with the above solution five or six times during the day, particularly after meals. The mouth should previously be well rinsed out with tepid water.—*Med. News.*

SANDER & SONS' Eucalypti Extract (Eucalyptol). Apply to DR. SANDER, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Griefswald.

Society Reports.

ACADEMY OF MEDICINE.

OFFICIAL REPORT.

Meeting of June 24, 1889.

The President, WM. JUDKINS, M.D., in the Chair.

DAVID DEBECK, M.D., Sec'y *pro tem.*

DR. LONGFELLOW read a paper on

Gastric Ulcer (see p. 115).

DISCUSSION.

DR. ELLIS referred to the famous case of Napoleon the Great. It was a disputed point between French and English surgeons as to the diagnosis, the former claiming gastric ulcer, the latter carcinoma of the stomach. The specimen seen by Dr. Ellis in the Museum of the Royal College of Surgeons, and which is supposed to be a piece of the stomach and duodenum obtained at the autopsy of the famous patient, seemed to demonstrate the latter.

DR. FREEMAN warned against the careless use of the stomach-tube. Prof. Oser, of Vienna, the great authority on diseases of the digestive tract, and the most devoted advocate of the stomach-tube and washing out the stomach, has entirely discarded it in chronic gastric ulcer, for fear of a possible perforation of the weak floor of the ulcer by its even most careful use.

DR. MERRILL RICKETTS exhibited three specimens of rounded concretions found in the stomach, post mortem. The patient had suffered with chronic gastritis and had been in the habit of taking considerable aggregate quantities of bismuth sub-nitrate. Recently the trouble had suddenly assumed an acute character, vomiting set in very persistently, and the patient succumbed. At the autopsy two of these concretions were found free in the stomach cavity; while one was embedded in the pylorus, held very firmly, and had evidently very completely occluded it. The speaker was of the opinion that these were bismuth concretions.

The Pasteur Filter.

DR. FREEMAN reported some observations made upon the slimy refuse left upon the outer surface of the porcelain tube of the Pasteur filter. In this slime he had found a number of bacteria, among others typical typhoid fever bacillus. The filter had been used upon our ordinary river water, as drawn from a hydrant tap. The water that had passed was free from the germs.

Dr. Freeman also gave an analysis of all the cases of typhoid fever occurring in children as recorded in the records of the Children's Clinic of the Ohio Medical College during the last six years.

Epithelioma with Trichinæ.

Dr. Cameron exhibited microscopic slides from a specimen of epithelioma of the larynx. The specimen was obtained at a post-mortem at the Betts Street Hospital. The peculiarity of the slide was that it showed in the muscles a large number of trichinæ spiralis, all old and encysted, and also calcified. It was surmised that possibly the constant irritation of these structures by the calcareous masses led to the development of the epithelioma.

Balsam of Peru in Phthisis.—Prof. Schnitzler has for some time past been using balsam of Peru in cases of pulmonary phthisis with laryngeal lesions. It may be remembered that Landerer drew attention to the efficacy of this drug some time ago, but little has been heard of it since. It may also be remembered that the drug acts differently on tuberculosis when injected directly into the veins than when given by the mouth. Dr. Schnitzler makes a solution of olei amygdalarum, mucilago gummi arabici, and chlorate of sodium 1 to 400, and in this form injects about 0.5 to 1.0 grm. of the drug. He advises the precaution of breaking up the oil globules every time before use, so that their dimensions are less than the blood corpuscles. The results he has obtained from this form of treatment in tuberculosis appear to be satisfactory.—*Med. Press.*

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations.

Leonard Freeman, M.D.,
J. C. Oliver, M.D.,
Otis L. Cameron, M.D.,
F. O. Marsh, M.D.,
Curators and Microscopists.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending July 27, 1889.

Ward.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	...	..	...	..	...	..	...
2nd	1	..	...	..	...	..	...	..	...	..	...
3rd	...	..	...	..	...	..	...	..	...	.	...
4th	...	1	1	1	...	..	...	..	...	..	...
5th	1	..	...	..	...	..	...	..	...	..	...
6th	...	..	...	..	...	..	...	..	...	..	...
7th	1	..	...	..	...	..	1	1	...	..	...
8th	1	..	...	..	1	..	...	..	...	..	...
9th	...	..	...	..	...	..	...	..	...	..	..
10th	1	..	...	..	...	..	2	..	...	..	...
11th	2	..	...	..	...	..	1	..	...	..	...
12th	...	..	...	..	...	..	1	..	...	1	...
13th	...	..	...	..	...	..	...	..	...	..	...
14th	1	..	...	..	...	..	...	..	...	..	...
15th	1	..	1	..	...	..	1	..	...	..	...
16th	...	..	1	..	...	..	...	..	...	..	...
17th	2	1	...	..	...	..	...	..	...	..	...
18th	...	..	...	..	...	..	...	..	...	..	...
19th	3	..	...	..	..	..	1	..	...	..	...
20th	...	..	1	..	...	..	...	..	...	..	...
21st	1	..	...	..	...	..	4	..	...	..	1
22nd	...	..	..	..	...	..	...	..	...	2	...
23rd	1	..	...	..	...	..	2	1	...	..	...
24th	...	..	...	..	...	..	...	..	...	1	...
25th	...	2	...	..	2	..	...	..	...	..	...
26th	...	..	...	..	...	..	...	..	...	..	...
27th	2	..	...	..	...	..	...	..	...	..	...
28th	2	..	...	..	...	..	2	1	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	1	..	...	..	...	..	2	..	...	..	...
Cin. Hosp.	...	1	...	..	...	..	...	..	...	..	...
Home of Fr'ndl'ss	...	..	...	..	...	..	...	..	...	2	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	21	5	4	1	3	..	17	3	...	6	1
Last week	34	7	7	..	6	1	15	5	...	1	...

The following is the mortality report for the week ending July 27, 1889.

Croup	1
Cholera Morbus	1
Cholera Infantum	6
Cerebro-spinal Meningitis	2
Diarrhœa	4
Diphtheria	3
Entero-Colitis	4
Measles	5
Scarlatina	1
Typhoid Fever	6
Other Zymotic Diseases	1—34
Cancer	2

Phthisis Pulmonalis	10	
Other Constitutional Diseases	7	—19
Bright's Disease	2	
Bronchitis	2	
Convulsions	4	
Heart Disease	2	
Liver Disease	2	
Pneumonia	3	
Other Local Diseases	20	—35
Old Age	4	
Premature Birth	3	
Puerperal Diseases (not including p. fever)	1	
Other Developmental Diseases	9	—17
Homicidal	3	
Unknown	3	— 6
Deaths from all Causes		111
Annual death rate per 1000		17.76
Deaths for corresponding week in 1888		115
Deaths for corresponding week in 1887		178

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 48 observers (embracing 38 counties) show the following diseases to prevail for the week ending Friday noon, July 26, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported	REMARKS.
Diarrhœa	33	122	Diphtheria reported by observers at Marlboro, West Liberty, and Weston. Reported by health officers: Cincinnati, 3 deaths; Salem, 1 case; Columbus, 3 cases, 1 death; Toledo, 1 case; Zanesville, 1 case; Findlay, 1 case; Hamilton, 2 cases. Scarlet Fever reported by observers Steubenville, Kalida, Holgate, Dupont, Jackson, and Weston. Reported by health officers: Cincinnati, 1 death; Toledo, 1 case; Columbus, 1 case; Zanesville, 1 case; Findlay, 2 cases; Hamilton, 1 case; Painesville, 2 cases, 1 death; Perrysburg, 4 cases. Typhoid Fever reported by observers at El Dorado, Weston, Winchester, and West Liberty. Reported by health officers: Cincinnati, 6 deaths; Piqua, 8 cases; Ludlow Grove, 1 case; Perrysburg, 2 cases; Hamilton, 1 case.
Cholera Morbus	29	68	
Dysentery	22	51	
Cholera Infantum	20	42	
Remittent Fever	13	30	
Whooping Cough	11	18	
Intermittent Fever	10	23	
Rheumatism (acute	10	14	
Bronchitis, acute	10	12	
Typho-Mal. Fever	8	22	
Tonsillitis	7	10	
Scarlet Fever	6	16	
Erysipelas	6	6	
Pleurisy	5	7	
Typhoid Fever	4	7	
Consumption (Pul.)	4	4	
Diphtheria	3	8	
Pneumonia	3	3	
Measles	2	2	
Puerperal Fever	2	2	
Cerebro-Spin. Men	1	1	
Croup, membranous	0	0	

C. O. PROBST, M.D., Secretary.

THE CINCINNATI

LANCET-CLINIC:

A Weekly Journal of

MEDICINE AND SURGERY

ISSUED EVERY SATURDAY.

TERMS, $3.50 PER ANNUM IN ADVANCE.

☞All letters and communications should be addressed to, and all checks, drafts and money orders made payable to

DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, August 3, 1889.

The Week.

RECOGNIZED INTEGRITY IN THE MEDICAL PROFESSION.

Not long since an influential and very prominent man in the business world called on the writer for assistance in promoting a monetary scheme of magnitude. In the conversation that ensued mention was made of fraudulent operations that were regarded in commercial circles as evidences of shrewdness, business tact and capacity. This man, who is a money dealer, said if the opportunity presented he would himself pursue a similar course to the one referred to, giving it his endorsement as fair from a commercial standpoint. Noting my surprise at his statements, he continued: "You must not expect such enterprises to be conducted on the same high plane of honor that is established and recognized in your profession."

Ever since our student days we have been conscious of the high moral standard that is professed and practically lived up to in our professional intercourse one with another and with those with whom our members have dealings, yet never before were we so fully made to feel that the concerted actions and lives of a hundred thousand physicians spoke to a Nation of sixty millions of people in such lofty tones. That hour I felt very proud of a tribute from such a man to professional integrity and morality, as compared with what "goes on Change."

Since then our mind has reverted to the careers of the very large number of physicians of whom we have had personal knowledge during the past quarter of a century, and we cannot recall one per cent. of the whole number who have gone wrong. This seems to be all the more remarkable when we bear in mind the character of service rendered. How that the physician sees more nearly the family home, with all its surroundings and interior; how often temptation is actually thrown in his way, and how bravely the tempter has been brushed aside.

To what is this high standard of moral integrity due? is naturally asked. Our reply is, to the faithful, strenuous teachings of our medical schools. There, as no place else, is taught the great doctrine of the brotherhood of man, and the moral and religious obligations of one to another. Who ever heard of an educated physician being arraigned as a thief, or a brawler, or charged with fraud or embezzlement? The teachings of his professors were that truth and uprightness, honesty, virtue and sobriety, honor and integrity should ever be blazoned on the standard of every man authorized by them to go forth and practice the healing art. So thoroughly has this been taught, and so well have those admonitions been lived up to, that the world has taken cognizance of the fact, and one of its shrewdest, wide-awake men is constrained to pay the flattering tribute to the plane of honor that is established and recognized in the medical profession.

Doctors are frequently said to be but poor business men. 'Tis well it should be so, if to be a good business man means to deliberately commit fraud that gain of money may come of the act; 'tis well it should be so when lust and virtue are tugging at the conscience; 'tis well it should be so on all occasions, public and private, that the world may know that the medical profession has a code of ethics that has in it a standard of morality so high that its recognition goes hand in hand with the common title of Doctor of Medicine.

COMPLAINTS are made because the railroads refused to issue special commutation tickets to delegates to the Newport meeting. These complaints are hardly justifiable, for all the trunk lines have on sale excursion tickets to Newport at greatly reduced fare, and it was asking a little too much to have the already low fare made lower. The railroad companies have always given special terms when no reduced rate tickets were on sale.

The above is from the *Pittsburg Medical Review*, and indicates that the editor is sadly misinformed. He can obtain proof and particulars from the General Passenger Agent of the Pennsylvania Railroad at Philadelphia and at Cincinnati. Not one of the railroads made provision for carrying delegates to the Newport meeting for any less than full fare going and returning.

THE Faculty of the College of Physicians and Surgeons of Baltimore held a meeting last week to fill the vacancies created by the deaths of Professors John S. Lynch and Oscar J. Coskery and the retirement of Professor A. B. Arnold, who has removed to San Francisco. Prof. Thos. S. Latimer was transferred to the chair of principles and practice of medicine and clinical medicine; Prof. Chas. F. Bevan to the chair of principles and practice of surgery and clinical surgery; Prof. J. W. Chambers to the chair of operative and clinical surgery, and Prof. George H. Rohé to the chair of obstetrics and hygiene. Prof. Thos. Opie will continue as professor of diseases of women and dean of the faculty. To fill vacancies created by these transfers new professors were elected as follows: Prof. Henry Sewall, of the University of Michigan, to the professorship of physiology; Dr. George J. Preston to the professorship of anatomy, with the diseases of the nervous system as a clinical branch of instruction. Dr. N. G. Keirle was elected as lecturer on legal medicine, in addition to his demonstrations in pathology; Dr. George Thomas as lecturer on diseases of the throat and chest; Dr. G. A. Liebig, Jr., of Johns Hopkins University, lecturer on medical electricity, and Dr. J. H. Branham, demonstrator of anatomy. Drs. L. F. Ankrim, Frank C. Bressler, and F. G. Moyer were appointed assistant demonstrators, and Dr. R. G. Davis, prosector of anatomy. Prof. Arnold was elected emeritus professor of clinical medicine.

THE American Association of Obstetricians and Gynecologists will hold its next annual meeting at the Burnet House, Cincinnati, O., in the rooms lately occupied by the Military Order of the Loyal Legion, on Tuesday, Wednesday, and Thursday, September 17, 18, and 19, 1889. No formal invitations will be issued to nonmembers, but the Association hereby extends a cordial invitation to all such members of the profession, wherever resident, as may feel interested, to attend the meeting and participate in the proceedings. The papers and discussions will embrace subjects pertaining to obstetrics, gynecology, and abdominal surgery.

By order of the President.
WILLIAM WARREN POTTER,
Secretary.

AMERICAN RHINOLOGICAL ASSOCIATION.—Owing to the absence of a large number of the fellows of the American Rhinological Association in Europe and to the Pacific Coast, the annual meeting will be postponed until October 9, 10 and 11, 1889, at which time it will be held at the Palmer House, Chicago, Ill.

By order of the President.
R. S. KNODE, Secretary.

DR. DONALD MCLEAN, Professor of Surgery, and Dr. G. B. Frothingham, Professor of Ophthalmology, at Ann Arbor, have resigned; and Dr. C. B. Nancrede, of Philadelphia, and Dr. Fleming Carrow, of Bay City, Michigan, have been appointed.

Obituary.

A. E. JONES, M. D.

Never before have we been called to chronicle so dastardly a murder as that committed in the villainous assassination of Dr. A. E. Jones, of this city, on the afternoon of July 25. The daily press has fully narrated the particulars of the horrible deed that terminated the life of one of the most useful men that ever lived in Cincinnati.

Dr. Jones served the public not only in his profession, but in a multitude of ways, and it is with no small degree of pleasure that we are able to recount the fact that on all occasions and in all positions, whether public or private, in his profession or out of it, he was always a high-toned, honorable, and honored gentleman.

Dr. Jones was all his life a military enthusiast, and at his decease was Surgeon-General of the National Guard of Ohio. Previous to the late war he was the principal organizer of a large local military command, known as the Continentals, four companies of which were mustered into the Ohio Volunteer service as part of the Fifth Ohio Volunteer Infantry. Soon after he was commissioned by President Lincoln as Colonel and Provost Marshal of this city, where he served with very great distinction. At the close of the war the Ohio National Guard was organized, and he was appointed Surgeon of the First Regiment, with which he served continuously until appointed Surgeon-General of the entire Ohio State Guard.

Dr. Jones served also for a number of years as a member of the City Council, where he was distinguished for his integrity and ability. The acquisition of Eden Park was largely through his personal efforts, and the improvement of Walnut Hills is due more to him than to any other hundred men.

Dr. Jones was active in good works in many other directions. He was eminently an active, able, and useful man.

With all the labor so freely given to his fellow citizens, we must say, with a great degree of sadness, that he has left his family in very moderate circumstances. Always frugal and plain in his own wants, he seemed to be ever more thoughtful of making others happy than of caring for himself.

Dr. Jones was markedly kind and affectionate in his family, and upon them this dreadful blow has fallen most heavily. Only an ever-merciful Heavenly Father can in this hour of trial give them consolation, comfort, and support.

THE PROFESSION.

The meeting of the medical profession at Lancet Hall, July 29, was presided over by Dr. C. G. Comegys, with Dr. Jas. G. Hyndman acting as Secretary. A large number of the oldest and most prominent members of the profession were present to pay their tribute to the memory of the deceased. Among those who spoke were Drs. Dawson, Comegys, Tate, Kemper, Culbertson, Young, and Bramble. The following preamble and resolutions were adopted:

"The medical profession of Cincinnati, deeply affected by the tragic circumstances connected with the death of Dr. A. E. Jones, have assembled to-day for the purpose of expressing their sorrow at the assassination and at the same time their high appreciation of his professional worth and admiration for his great public spirit in all questions involving the preservation of the historical data of our city, the growth and improvement, and the memories of the distinguished men whose lives have been connected with this portion of the Ohio Valley.

"The career of Dr. Jones is especially eminent in his patriotic efforts on every occasion which involved the honor and maintenance of the integrity of the Nation, and in the many important positions which he held as an officer of the United States Army and Ohio National Guards, in which he has always displayed great activity, efficiency, and public virtue. In the fulfillment of his professional and public duties he has been one of the most widely known and respected of our citizens, and though he had reached the period of long life, yet his vigor and capacity showed no sign of abatement, and he still possessed 'a heart of youth in a frame of age.'

"*Resolved*, That the medical profession of Cincinnati have ever regarded Dr. A. E. Jones as an intelligent, prudent, and conscientious practitioner of medicine; that he was unremitting in his care of the sick, and that the lowliest as well as the highest, socially, in the area of his practice found in him a faithful physician and an unwavering friend.

"*Resolved*, That we offer to his stricken family the assurance of our profound grief and compassion in their bereavement.

"C. G. Comegys,
"J. H. Tate,
"J. C. Culbertson."

The venerable Dr. Tate, who had practiced with Dr. Jones for forty-nine years, said:

"The chamber where death has entered is always filled by sadness and gloom. A cold and solemn stillness pervades the atmospere, which neither piety can dissipate nor philosophy destroy.

"To-day we stand in peculiar circumstances, amid the drapery of that awful chamber, to look for the last time at the venerable form of one whom we have long recognized as a friend and brother, and as we gaze on the face of the dead our minds are filled with strange and contending emotions. We mourn with those who weep when one so dear has been taken away, and when we think that we shall see his face no more sorrow fills our hearts; but when we see that that form has been mutilated and crushed by an assassin's hand, indignation and horror take possession of our minds. We are amazed to find that in such a community, beneath the shadow of schools and churches, a monster could be found capable of such a deed on such a man!

"But, alas! the good old physician, the loving father, the genial companion, the enterprising citizen, the courageous patriot, the generous friend, has passed away.

"A few years more at most, and this

venerable man would in the course of nature have gone to the great resting-house of humanity; he had filled out the work of his generation.

"Many generous deeds he had done, many public enterprises he had cherished, many hours had he given to the service of his country.

"Let us emulate his virtues; let us forget his frailties; let us cherish his memory."

"GOOD MAN, OLD MAN."

We clip from the *Commercial Gazette* of July 28 the following tenderly beautiful tribute to Dr. A. E. Jones by Robert J. Burdette, on his sixtieth birthday. It was published in the *Burlington Hawkeye* by the then editor of the paper, Mr. Robert J. Burdette, a nephew of Colonel Jones. It was written in 1879, after the receipt of a telegram from Colonel Jones announcing his sixtieth birthday anniversary. It was read at the reception held at his house for the officers of the First Regiment O. N. G., on July 17, 1889, Colonel Jones' seventieth birthday anniversary.

[Telegram.]

"CINCINNATI, July 15, 1879.

"Sixty to-day. May you be so young at my age. A. E. JONES."

I received the other day a telegram from a good old man in Cincinnati; a man who had always favored me when I was a mischievous youngster, and always made the most of me when I deserved the least. His telegram, which I reproduce here, set me to thinking about

"COLONEL JONES."

Short of six feet stood Colonel Jones,
Good man, old man;
Steady his steps and strong his bones,
And he laughed and he sang in rollicking tones;
He mocked at fatigue and he laughed at the storm,
For his head was as young as his blood was warm.
His speech was fair
And his shoulders square
When Old Time shouted in heartiest tones;
"Morning! You're sixty, Colonel Jones."

Of honest, old stock came Colonel Jones,
Good man, old man.
Proud of the lineage he bears and owns,
That mocked at scepters and struck at thrones;
That shouted defiance at old King George.
And shivered and hungered at Valley Forge.
Dishonor and shame
Can not touch his name,
Baptized in the fountain of tears and moans,
And it fits him splendidly, "Colonel Jones."

To the front stepped Colonel Jones,
Good man, old man;
When Sumter's guns and Freedom's moans
Were echoing Treason's baleful tones.
He girt on the sword that his grandsire wore,
And he threw the scabbard away and swore
That the sword he draws,
In Freedom's cause
Shall never go back till the old flag owns
Every star in the Union, said Colonel Jones.

But his frame grew old, though his heart kept young,
Good man, old man;
And he cheerily wrought with pen and tongue,
And he joined in the song that his children sung,
Till the slow bells tolled from the spire one day,
And Alfred, the first-born, was taken away;
Then the wedding bells chimed as the years went on,
And Nettie, the darling, has married and gone.
And the tears will rise
In the old blue eyes,
And a tremor comes into the hearty tones;
"Ah, the Lord knows best," says Colonel Jones.

So the years flew by like a placid stream,
Good man, old man;
And the old man's eyes with the young light beam;
Like the murmuring tide, with its ebb and flow,
His children's voices come and go;
Sweet old-time memories, o'er and o'er,
Like the plashing fountain beside his door,
Creep into his life, with a dreamy flow,
And carry him back to the long ago.
So melts his day
Into evening gray,
Till the good Lord's angel, in gentle tones,
Says, "Time is done with you, Colonel Jones."

R. J. BURDETTE.

FAITHFUL SERVICES RECOGNIZED.—Dr. James F. Hartigan, of Washington, has been appointed to an important Austrian consulate, and it is reported that the office has been given to him, in preference to many others, on account of an impairment of his health incurred in governmental service. While the fever prevailed in Florida, he undertook some special medical duty in that State for one of the departments at Washington, in the course of which he became ill and has been disqualified for active practice ever since. It is pleasing to make mention of this, both as a preferment won by faithful medical work and as an unusual and honorable act on the part of the authorities.

SIR WILLIAM JENNER has advised the Queen to give up champagne and claret for the present, and to drink whisky and Apollinaris Water.—*Truth*, London, July 11, 1889.

Selected.

THE FUNCTION OF THE RENAL GLOMERULI.

[*N. Y. Medical Journal.*]

In his "Lectures on Important Symptoms," in treating of albuminuria, Professor Grainger Stewart considers the glomeruli of the kidney as mere filters, leaving out of consideration the possibility that their epithelium may be of a secretory nature. In a recent thesis on "The Functions of the Glomeruli of the Kidneys; a Contribution to the Study of Albuminuria," Mr. J. G. Adami, demonstrator of pathology in the University of Cambridge, discusses the various theories of renal activity at some length, especially with reference to the part played by the glomeruli.

The mechanical theory, based upon the researches of Ludwig and his school, broke down when Bowman, by injecting sulphindigotate of sodium, demonstrated the passage of substances through the cells of the tubuli contorti, and showed that these cells, instead of absorbing, excreted into the lumen of the tubules. Notwithstanding this, there are still able men that hold, with Professor Grainger Stewart, that the general blood pressure is the determining factor in the production of the fluid part of the urine. Adami shows, however (*Practitioner*, April, 1889), that blood pressure plays a secondary *role*. This becomes evident, says Adami, when we study the cases in which, the general arterial pressure remaining constant, the outflow through the renal vessels is obstructed. Ludwig pointed out, a quarter of a century ago, that narrowing or temporary closure of the renal veins was accompanied by a rapid slowing or stoppage of the flow of urine, notwithstanding the undiminished general arterial pressure, which is accompanied by increased pressure in the glomerular loops. Ludwig's explanation of this, that the dilated capillaries so pressed upon the tubules as to constrict them, close their lumen, and prevent any passage through them, was combated by Heidenhain, who propounded the theory that it was the rate of flow through the glomeruli, rather than the blood pressure, that governed the passage of water through the kidney. This theory, however, does not imply that the blood pressure is not a factor in the process, and the recent work of Paneth has confirmed and established Heidenhain's contention. And Munk cites experiments to show that the rate of blood flow, and not simply the blood pressure, determines the glomerular excretion, though he did not in his experiments entirely eliminate the factor of blood pressure.

It is now generally conceded by physiologists that it is the velocity of the flow through the glomeruli, and not solely the blood pressure in them, that governs the excretion of the fluid of the urine. This being admitted, the question now arises: What is the nature of this excretion? Is it simply a process of filtration, or is it more of a process of secretion? These questions are of great importance in the interpretation of albuminuria. Both Heidenhain and Cohnheim have insisted upon the secretionary view, but Senator, Runeberg, and Grainger Stewart hold to the theory that the glomeruli act simply by transudation. Of course the composition of a secretion entirely precludes the idea that it is a filtrate, nor can a secretion be explained by the laws of filtration; its quality is determined by the specific characteristics of the gland cells. Given a membrane that, while the blood pressure remains constant, at one time permits and at another time prevents the passage of fluid from the blood, such membrane must have specific properties, too complex to be accounted for by the laws of a simple form of physical action. Senator's theory is that the fluid portion of the urine is derived in part from the glomeruli by transudation, and in part from the epithelium; and he considers that the cells of the tubules, like other cells, in secreting any substance always excrete with it a certain amount of watery fluid. Grainger Stewart thinks that we may hold with certainty that the water is mainly eliminated by filtration through the Malpighian bodies; but the urea and other urinary solids are not discharged by filtration, but by a secretive process performed by the cells of the tubules; and that along with this secretion, as in the case of other glands, a certain amount of watery fluid passes.

But the supporters of the filtration theory have a great obstacle to contend with; they must explain how it is that a filtrate from the albumen-containing blood serum is normally free, or almost entirely free, from albumen. If the capillary loops of the glomeruli with their epithelial covering form but a passive filtering membrane, then the loops must obey the same law as, and correspond in general action to, other animal membranes. All other transudations contain albumen, and fresh animal membranes, when used as filters, always allow the passage of albumen. Why does not the normal glomerular membrane permit the passage of albumen always in the normal state? Grainger Stewart himself admits that, even after considerable concentration, albumen is not to be discovered in what he rightly terms normal urine. It may be said that the cells of the tubules reabsorb the albumen transuded through the glomeruli. But Senator has shown that the cells of the tubuli, so far from absorbing, may actually excrete albumen under certain conditions. Grainger Stewart inclines to the opinion that "the blood pressure in the capillary loops, and the walls of these vessels with their epithelial coverings, are so balanced as to permit of the transudation of fluid, and yet completely to prevent the passage of albumen. . . . And at all events we may hold with certainty that water is mainly eliminated by filtration through these structures."

There is certainly a definite blood pressure in the glomerular loops. But a high pressure does not prevent the passage of albumen through simple animal membranes. With a pressure below that which in the dog and in man is accompanied by a total cessation of urinary excretion, albumen continues to transude through membranes outside the body. Where, then, asks Adami, occurs the balance of which Grainger Stewart speaks? If we say that such a comparison between dead and living membranes is unjust, we must acknowledge that the living membrane has some factor that the dead one has not; that the glomerular walls have specific properties and actions unaccounted for by the laws of filtration and transudation; in other words, we are on the verge of asserting that the glomerular epithelium may exercise a selective function; which is the position in which Stewart finds himself.

There are other grave objections to the filtration hypothesis. Runeberg has shown that, at a mean pressure of 73 mm. of mercury, as much as 95 per cent. of the albumen in solution may pass through an animal membrane; even at a pressure of 7.3 mm. there is still a high percentage. At the ordinary blood pressure of 120 to 150 mm. of mercury there should be no great diminution in the amount of albumen filtered. What is the fact? The picric-acid test shows that in the normal state there is less than 0.00015 per cent. of albumen passed! According to Hammersten, normal blood serum contains 4.516 parts of serum albumen; so that, even if normal urine contained 0.2 instead of less than 0.00015 per cent. of albumen, the theory of urinary filtration is still at fault, even if we admit that the greater portion of the urinary fluid is excreted through the tubules. Again, says Adami, we know that blood serum contains large amounts of two proteids—serum albumen and serum globulin. Both transude through fresh animal membranes, and, serum globulin being the more diffusible of the two, it should appear in the urine in cases of albuminuria. The two proteids should be present together in the urine, and in fairly constant proportions. But such is by no means the case. The theory that glomerular activity is of the nature of simple filtration or transudation fails absolutely. We must consider the glomeruli as possessing functions of a selective or secretory nature, permitting the passage of some substances and preventing the passage of others. In favor of this view there are the following facts: The glomeruli are not solely blood capillaries; each capillary loop is covered with a fine membrane with a single layer of epithelium the cells of which must be considered as having actively vital properties, one of which is contractility, as shown by Hedinger. The histology of the tubular epithelium, of which the glomerular epithelium is but a part or a continuation, shows that it is of a selective and secretory nature. Experimental physiology shows the same thing. The investigations of Afanassiew and Hunter in regard to hæmoglobinuria confirm this view. Adami does not allege for the glomerular epithelium any synthetic power; his argument is that it has a selective power, active and not passive, producing a secretion and not a transudation.

What, then, are the factors that determine the appearance of albuminuria? It is admitted that albumen, when it appears in the urine, passes through the glomeruli. Senator's experiments seem to prove that some of the albumen has its origin in the uriniferous tubules, "and it is not improbable that in parenchymatous nephritis and in venous engorgement of the kidney a certain, and it may be a large, proportion of the albumen originates from the affected cells of the tubuli." There is no denying that infinitesimal amounts of albumen may be present in normal urine. The absence of ascertainable quantities is probably due to the healthy state of the tubular cells and to the normal functional activity of the glomerular epithelium, which prevents the passage of albumen and globulin, provided they are not in the blood in excessive quantities. Aside from this excess, the amount of albumen passed is mainly determined by the state of the glomerular epithelium, which in a condition of lowered vitality permits the egress of a fluid more of the nature of a transudation; the lower the vitality of the epithelium, the more is the fluid passed of the nature of a filtration, the epithelium having to a certain extent lost its selective and controlling power. In this way the proteids of the blood serum sink to a percentage below the normal. Reasoning on these lines, we can, says Adami, explain the graver forms of Bright's disease, and also many cases of transient albuminuria. The factors that, singly or in combination, temporarily lessen the rate of blood flow through the glomeruli, and thus cause imperfect nutrition of their delicate walls, or directly lead to imperfect nutrition and lowered vitality, will probably explain most cases of transient albuminuria, febrile, toxic, puerperal, and functional.

NEPHRECTOMY OF A HORSESHOE KIDNEY.—Professor Socin, of Bale, performed an exploratory operation last year on a woman, aged forty-seven, who had been subject for thirty years to pains in the right hypochondrium, where a tumor had gradually formed. He aspirated, and found that the swelling contained urine; then he performed nephrotomy. Hydronephrosis was discovered during the operation. The urine passed by the urethra remained normal, but on and after the fourth day an abundance of turbid urine drained from the opening made in the kidney, and an examination led to the conclusion that parenchymatous nephritis and purulent pyelitis were present. On May 12th nephrectomy was attempted. After an abdominal incision and successful ligature of the structures in the hilum, it appeared that nothing was left to do besides setting free the lower part of the diseased kidney. On careful manipulation this extremity was found to be continuous with a bridge of renal tissue, which passed over the aorta and vena cava and joined the lower part of the left kidney. This bridge or isthmus was found to be but loosely connected with the great vessels. Dr. Socin divided it by means of the thermo-cautery, so that the right side of the horseshoe kidney came away. Five ligatures were applied to bleeding points on the raw surface left behind, which was then covered over by the capsule, the edges of the latter being united by sutures. An abdomino-lumbar drain was applied. The patient was in excellent health four months after the operation. In Braun's (Heidelberg) similar case a horseshoe kidney was discovered at operation for the removal of a pyonephrosis. The isthmus adhered strongly to the vena cava; on attempting to separate them, profuse venous hemorrhage occurred, which was controlled with difficulty. The patient sank from exhaustion at the end of the operation.—*Brit. Med. Jour.*

THE TREATMENT OF UTERINE FIBROIDS.—At the meeting of the Société de Chirurgie, M. Terrillon spoke on the treatment of uterine fibroid tumors. He considered that they should be removed not by abdominal hysterectomy, but piecemeal through the vagina. M. Lucas-Championnière said that there were three varieties of those tumors—with pedicle, without pedicle, and intestinal. The operators were divided into two classes, those who employed the serrenœuds, the écraseur, or the galvano-cautery, and those who employed simply the scissors. He belonged to the latter class, as he had frequently found the other instruments gave rise to hemorrhage and other grave accidents. M. Terrier expressed himself as by no means a partisan of the vaginal method, as very frequently the operator was working more or less in the dark, and when the fibroma suppurated there was considerable danger of infecting the patient. He consequently much preferred laparotomy, which gave him entire satisfaction.—*Med. Press and Circular.*

SIR ANDREW CLARK ON HOSPITALS.

[*Boston Med. and Surg. Journal.*]

At a recent meeting in London, held at the Mansion House, in behalf of the Hospital Sunday Fund, Sir Andrew Clark, President of the College of Physicians, was the principal speaker. He set forth in a very plain, forcible way the benefits which hospitals confer upon large, crowded communities, and the corresponding claims which they have upon all classes of such communities. He gave an admirable summary of the reasons why the whole population of any great city is equally interested in the support of its great hospitals. That they are a blessing to the poor man is not likely to be overlooked, but that they prevent the spread of epidemic diseases, hinder the outbreak of pestilence, and serve as the true nurseries of the medical skill and intelligent care which every man and woman is likely to have to call upon some day, are facts which the general public and the well-to-do need to have kept before their eyes. But there is still another service of a politico-social character which hospitals render in large centres of population, which is surely very much overlooked, and which we are glad to see alluded to by Sir Andrew in these words: "I do not know that there is anything so trying to the faith of mankind or to the order of their lives as to see those whom they love get sick and grow worse and unassisted. Now, in the great centres of population, such as we know a good deal about in the east of London, it is an enormous advantage to keep down those terrible revolutionary feelings which are apt to arise in the breasts of men when they look upon those whom they love crowded together in poor miserable hovels, sick and suffering, with no one, as they think, to relieve or care for them. It seems to me that in this there is a service which hospitals do render to the community, and which the community in these days forgets."

The income of the great London hospitals has been diminishing of late years, while the demands made upon them are continually increasing. The agricultural distress has diminished the proprietary income of the old hospitals, and, in so far as they are dependent upon voluntary contributions, they suffer from what this address terms a diminution in the strength and virtue of giving. Sir Andrew Clark believes, moreover, that the great general hospitals are robbed of some of the support which they ought to receive by the foundation and maintenance of improper hospitals, which divert funds in directions in which they ought not to be employed.

He pays his respects to special hospitals in the following sentences:

"A doctor who cannot get on in the ordinary way takes to studying the great toe, and he discovers something about it never known before. In the course of his studies he ascertains that the diseases of the organ are not only supremely important in themselves, but that they have the most intimate relation to all the other serious diseases of the body. He also invents a wonderful instrument whereby he can look into the great toe and see what is threatening, and prevent all those terrible things which happen in the organ and affect the whole system. He goes to his friends, shows them his instrument, and tells them of his discoveries. They then club together and establish a Hospital for the Treatment of the Diseases of the Great Toe. They soon get patients who are convinced of the vast importance of the diseases of the great toe. Marvellous cures are effected and all sorts of frightful diseases are prevented. They have an annual meeting. They have a chairman who sets forth bashfully in the presence of the great physician the diseases of the great toe, the wonderful things that have been done, the great service which has been rendered by the hospital, the terrible prejudice it has had to encounter, and the determination that this great institution shall be liberally supported, notwithstanding the prejudices of the medical profession and of those who herd with them."

There has been a disposition to curtail or abolish the out-patient departments in connection with some of the London hospitals, but Sir Andrew, who has probably had as large an experience with them as any one in London, comes vigorously to their defence. Where else, he asks, can the doctor come face to face with the early aspects of disease, where else with those first small indications of disease which tell of its near approach and which are still within the power of art to avert? The doing away with these departments of the great London hospitals would, he thinks, inflict a cruel, irreparable wound on practical medicine in his country.

The opinion that special hospitals have been overdone in London seems to be part of the best medical sentiment, and there is nothing in the remarks of Sir James Paget, Sir Henry Acland, and others at a recent meeting in Oxford, held in behalf of the Eye Hospital of that place, which controverts this opinion. A tendency to the same error has for some years been manifested in our own large cities.

ENDO-AUSCULTATION. — Prof. Aurelio Bianchi has introduced a new method of physical exploration, which he anticipates will lead to important results in the domain of physiology as well as in that of clinical medicine. This method, which he terms "endo-auscultation," consists in utilizing the ordinary œsophageal tube as a means of auscultating the gullet and stomach, and through them to a certain degree the heart and lungs. By passing an œsophageal tube provided at the upper extremity with a bifurcated gum elastic tube fitted with ear-pieces, as in a binaural stethoscope, down the gullet into the stomach, sounds can be heard which, according to Dr. Bianchi, indicate a smooth or rough condition of the mucous surfaces over which it travels, the presence of foreign bodies, diverticula, tumors, etc. The respiratory murmur and the heart-sounds are also audible, and can thus be studied from a different point of view from that afforded by ordinary stethoscopic examination. According to Bianchi, conclusions can be drawn from the weakness or absence of the respiratory and cardiac sounds as to the condition of the walls of the œsophagus and stomach, or, on the other hand, as to the functional activity of the thoracic organs. Any little addition to our means of diagnosticating obscure conditions of the gullet and stomach will be welcomed by clinicians, but it is doubtful whether endo-auscultation will be as fruitful of valuable results as Professor Bianchi expects, as it is obvious that just in those cases where it would be likely to be most serviceable it will be difficult or impossible to apply it.—*Lond. Med. Recorder.*

VERTIGO FROM CONSTIPATION.—Persons who are accustomed to have a regular action of the bowels every morning are usually affected with giddiness or vertigo, or with a sense of faintness, if the natural habit be, by any accident, omitted. The reason is a very simple one, and is purely mechanical. The regular habit causes the rectum to be loaded with fæces, and when the rectum is loaded there is pressure on the surrounding veins. But, as I have shown by direct experiment, the cerebro-spinal fluid finds its way into the venous circulation by the inferior vena cava and the common iliac veins. When, therefore, there is pressure, causing impediment to the venous circulation in the pelvis, there is at once an interference with the process of escape of the cerebro-spinal fluid, and pressure upon the whole of the cord, up to the cerebrum itself.

The form of constipation here referred to is in the rectum, and must not be confounded with constipation due to accumulation or inaction in the colon. Vertigo with constipation, and with the patient connecting the uneasy cerebral symptoms with the constipation, is an indication that the rectum is loaded, and that relief will follow from a brisk aloetic purge.—RICHARDSON, *College and Clinical Record.*

TURPENTINE IN POST-PARTUM HEMORRHAGE.—"For some years," writes a correspondent, "I have used spirits of turpentine in post-partum hemorrhage, and, in every case, with the best results. When the ordinary means, *i.e.*, friction over the uterus, irritation of the uterus by introducion of the fingers, cold, hypodermic injection of ergotine, etc., failed, by saturating a piece of lint with the turpentine, and introducing it with my hand into the uterus and holding it against the walls, rapid contraction took place, and all hemorrhage instantly ceased. In one or two cases, when the patient was almost pulseless, it seemed to act as a stimulant. On no occasion did its action fail, nor did it cause the slightest inconvenience, except in one, when the side of the patient's thigh was slightly blistered by some that came in contact with it, but it gave very little annoyance. I consider it to be much quicker and safer in its action than any other remedy; it does not cause any injurious result, and besides, it is much more easily applied. In country practice, getting hot water, or using injections often entails loss of valuable time.—*Lancet.*

WEAK HEART AND ITS TREATMENT.

[From the *N. Y. Medical Journal.*]

At the meeting of the New York Neurological Society, December 4, 1888, Dr. W. A. Hammond read a paper on weak heart and its treatment. The paper referred simply to weakness of the muscular structure of the heart uncomplicated by dilatation or valvular disease. The affection, he said, is very common, and while it may be fatal in its results, it may also be relieved entirely by treatment, which can be resolved into medicinal, gymnastic, and dietetic. Digitalis is the main medicinal remedy. The author has never observed the so-called cumulative effects of this drug. He thinks, on the contrary, that it requires increasing doses. He administers the infusion in two-drachm doses for two weeks, then he increases the dose one-fourth, repeating the increase at the end of the second fortnight. Convallaria he considers uncertain and unreliable. Strophanthus he thinks of more value; where there is intolerance to digitalis, it may be given. Strychnine is a valuable remedy in weak heart. He prescribes a grain in an ounce of dilute phosphoric acid, ten drops three times a day. Cocaine is a valuable remedy, a fifth of a grain being given three times a day. It has been Dr. Hammond's habit to add two grains to a pint of Malaga wine, a wineglassful being used at a time. Inhalations and hypodermic injections are required often in the weak heart of disease. Hypodermically he has used brandy, digitaline in one-twentieth-grain doses, and nitrite of amyl, two drops diluted with thirty drops of glycerine. Glonoin is useful in one-hundredth-grain doses. Medication is, however, only temporarily useful. Exercise is required for the permanent relief of this condition. Mounting stairs is mentioned as a convenient form of exercise. People living in the country may mount hills. The physician should, however, be in attendance, and the exercise should be suspended when the action of the heart has accelerated fifteen beats a minute, to be resumed upon its tranquilization.

One important point in etiology has, he thinks, failed to be recognized. This is that a normal heart, under ordinary circumstances, may become a weak heart by simple increase in the general body weight. He has had personal experience upon this point. His ordinary weight is two hundred and forty pounds. When it increases to two hundred and sixty pounds, which it does about twice a year, he is troubled with weak heart. He is then accustomed to apply his own prescriptions as to diet and exercise. In this way he can reduce his weight thirty pounds in thirty days. He then again eats and drinks what he pleases. When he went up to Mackinaw last summer he had been suffering from weak heart. When he returned he could climb anywhere, and was perfectly comfortable.

The dietetic treatment of weak heart refers especially to ingested liquids, the quantity of which should be limited. By lessening the amount of liquids ingested, the total amount of blood in the body is diminished and the work of the heart lightened. In some cases Dr. Hammond has reduced the daily quantity to twelve ounces, with marked improvement within forty-eight hours. The diet is further modified so as to reduce the amount of fat if this is excessive.

DIFFERENCES OF TEMPERATURE OF THE TWO SIDES OF THE BODY A SYMPTOM OF CEREBRAL LESIONS. — At the meeting of the Neurological Society of London, which was held May 10, Professor Horsley read a paper on clinical observations during the past seven years on the value of differences observed in the temperature of the two sides of the body as symptomatic of cerebral lesions. The lecturer desired to draw attention to the practical importance of the subject. He stated that an analysis of eighteen cases observed by him had proved that notable asymetry of the two sides of the body occurred when a lesion was situated in what he wished temporarily to call the corpus striatum frontal plane of the hemisphere, this on the surface of the cortex passing through the ascending frontal gyrus. Further, that, as a rule, the converse also was true —namely, the occurrence of a lesion in other parts of the hemisphere was not accompanied by change in the temperature of the opposite side of the body. When, as in the former condition, change did occur, it was, with very rare exceptions, evidenced by a rise of temperature of the opposite side of the body. The solution of the problem could only be determined by experiment, and, until that was done, he deprecated the use of such expressions as "heat centres," etc., the existence of the difference, although a very valuable fact, being only so far ascertained. The discussion was continued by Dr. Hughlings Jackson, Dr. Bastian, Professor Schäfer, Dr. Beevor, and Dr. Mickle. There was a general agreement on the facts of the case, and their practical and scientific importance; but it was felt that much clinical and experimental work must yet be done before certainty of interpretation could be reached.—*British Med. Journal.*

EXOPHTHALMIC GOITRE.—A case recently published by Dr. Hale White seems to shed some light on the pathology of this disease, which has hitherto been shrouded in utter darkness. A woman, aged thirty-one, who had suffered from the disease in a typical form for many years, died in Guy's Hospital, and a necropsy was made six hours after death. The spinal cord and cervical sympathetic presented nothing particular, but marked changes were found in the medulla. At the level of the lower part of the olivary nucleus, just under the posterior surface of the medulla, there was evidence of slight inflammation. Immediately under the posterior surface of the medulla, extending from the middle line as far out as the restiform bodies, which were rlightly implicated, were numerous hemorshages. These seemed almost entirely limited to the posterior superficial part of the reticular formation, but there were two or three small deeper ones. According to Dr. Hale White this is the first case recorded in which lesions have been found in the central nervous system in association with exophthalmic goitre, and he concludes that the disease is due to changes in central parts of the floor of the fourth ventricle, which ordinarily escape detection because they are so fine.—*London Med. Recorder.*

CANCER OF THE BREAST TREATED BY INOCULATION WITH ERYSIPELAS. — Axel Holst communicates to the *Centralblatt für Bacteriologie*, Bd. III, 1888, No. 13, an account of an interesting experiment. A strong work-woman, forty years old, had a relapse after extirpation of a cancer of the breast. The cancer—a rapidly growing skin cancer—involved in the course of a few months nearly the whole anterior surface of the right breast; the general condition, however, was but little influenced. The experiment of inoculating upon the cancer a virulent culture of erysipelas cocci was now tried. Twenty-four hours after the incorporation into the skin of the erysipelas cocci on the border of the wound surface, the patient was taken sick with a typical erysipelas, which involved the whole right arm. On the seventh day the fever fell and euphony occurred. The erysipelas of the arm did not subside, however; four and one-fourth months after the inoculation chronic erysipelas persisted. The immediate effect of the inoculation upon the ulcerating surface of the carcinoma seemed to be favorable; it began to skin over and to become smaller. The improvement soon ceased, the cancer grew worse, and nodes developed on the right arm corresponding to the extent of the erysipelas. The general condition grew progressively worse, so that Holst thinks the inoculation with erysipelas in the present case was productive of more harm than good.—*Med. and Surg. Reporter.*

PRACTICAL BOTANY.—Not all students are aware of the valuable privileges granted to them for the purpose of botanical study by the Royal Botanical Society of London. The admirable morning lectures given in their beautiful gardens are among the highest intellectual and physical pleasures which an industrious student can enjoy. We see from the last report of this most valuable Society that 708 medical students attended the gardens during last year with free admissions granted to them from one to three months; 47,000 specimens were distributed to students. The interesting collections of medico-botanical and of hardy plants and of hardy medico-botanical trees, arranged in order of their natural affinities, are alike beautiful to the eye and instructive to the mind of the botanical student. To those really desirous of study, the facilities granted by the Society cannot be too gratefully recognized. The Society is managed by Mr. W. Sowerby, the Secretary, under the supervision of the Council, of which Sir Joseph Lister, Dr. George Johnson, Mr. Mivart, Dr. Robert Liveing, and Sir Edwin Saunders are members.—*Brit. Med. Jour.*

TUBERCULOSIS AND ACTINOMYCOSIS.

[From the *British Medical Journal.*]

The more general recognition of the important etiological relations between the infectious diseases of man and of the domestic animals, which is one of the most marked features of the recent progress in pathology, lends an unwonted interest to the Reports of the Professional Officer of the Agricultural Department of the Privy Council. Professor Brown and his colleagues have to meet difficulties of the same kind as those which occupy the attention of the medical officer to the Local Government Board, and though the methods of dealing with the problems which arise are necessarily different, the scientific facts upon which administrative procedures are, or ought to be, based are identical. The annual report of the Agricultural Department of the Privy Council Office on the contagious diseases, inspection, and transit of animals for the year 1888, which will shortly be issued to the public, will be found to form with its appendices a volume of 336 pages, a very large proportion of which is devoted to subjects, such as tuberculosis, actinomycosis, anthrax, and rabies, which have a direct bearing on human pathology and preventive medicine.

The relation of human and bovine tuberculosis and the danger of using tuberculous meat have so recently been discussed in these columns, ([1]) that we need not recapitulate the facts and arguments there advanced. Professor Brown sets out the report of the Department Committee issued last July, and it may not be amiss to recall the recommendations of that Committee. As to prevention, these were (1) more stringent enforcements of the Dairy and Milk Shops Order, veterinary inspectors being given power of entry into all places where animals are kept; (2) greater attention to the hygienic surroundings of animals, including (*a*) isolation of infected cases; (*b*) precautions against the flesh or milk of diseased animals being given as food to pigs, fowls, and other animals; (*c*) care that fodder, litter, and water should not be taken from one animal or stall and given to another; (3) power to be given to the veterinary inspecter to seize in fairs, markets, or in transit, all animals which come under the denomination of "wasters" or "mincers," ([1]) such animals being, as a rule, in the last stage of tuberculosis; (4) that breeders should in their own, as well as in the public, interest discontinue breeding from tuberculous stock. As to extirpation of the disease, the Committee recommended that tuberculosis should be included in the list of contagious diseases, for the purposes of those sections of the Contagious Diseases (Animals) Act which provide for the slaughter of diseased animals, and for compensation. An Order in Council, making the required regulations, was drafted, but, unfortunately, it was thought that the practical difficulties in the way were too great, and it was never issued. One main objection is the difficulty of adjusting the circumstances under which compensation ought to be made, and its amount. This point has, however, been already somewhat fully discussed in the recent article to which reference is made above. A good deal of stress is laid by Professor Brown upon the difficulty of diagnosis; in particular, it was pointed out to the Privy Council that tuberculosis was liable to be confounded with actinomycosis, a disease which it now appears is prevalent in all parts of Great Britain where the land is wet, but especially in the Fen districts and in Scotland. This particular objection, however, cannot be admitted to have much weight, for in those cases of actinomycosis in which mistake is alone likely to occur, probably the best course is to slaughter the animal.

From another point of view, however, the importance of making a diagnosis between these two diseases in animals is considerable. There can be no doubt that bovine actinomycosis has been, up to quite a recent period, universally regarded as tuberculosis or scrofula, and that many veterinarians still fail to draw a distinction. Consequently, the proportion of cattle in this country returned as suffering from tuberculosis must have been considerably exaggerated. Now, actinomycosis is almost certainly a very rare disease in man, and the evidence at present available is all against the hypothesis that it is directly transmitted from animals to man. The commonest site for the disease in bovine

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1. LANCET-CLINIC, July 13, p. 56.

1. So called because sold to the sausage makers!

animals is the tongue, and it is believed to gain a footing in slight abrasions produced by certain kinds of fodder, especially by barley. Jensen, indeed, goes so far as to assert that the fungus grows on grain, husks, and straw of different cereals, but most abundantly on barley, which is also most likely to wound the mucous membrane. The most probable hypothesis is that the disease infects human beings in the same way; this, as Professor Crookshank points out, receives some confirmation from an observation of Soltmann's. In this case a boy, aged 11, accidentally swallowed an awn of barley; an intrathoracic abscess formed, and when opened the awn was found in the evacuated pus; the abscess, however, did not close, and the characteristic ray fungus was eventually discovered. There appears to be no question that Professor Crookshank has succeeded in cultivating the ray fungus, thus confirming and extending the researches of Boström. His report on the disease, as observed in bovine animals and in man, is very full and exhaustive; it occupies nearly eighty pages, and is copiously illustrated by lithograph drawings of diseased animals, *post-mortem* appearances, and microscopic preparations; any one desiring to obtain an accurate acquaintance with the present state of our knowledge cannot do better than obtain this volume, which, as we have already stated, will shortly be on sale.

In a further report on tuberculosis, also contained in this volume, Professor Crookshank brings evidence in favor of the view —advanced by Koch and supported by Woodhead, but disputed by Klein—that the same bacillus is found in human and bovine tuberculosis. There seems to be good reason to believe that the tubercle bacillus varies slightly in appearance according to the exact site which it occupies. As Klein pointed out, the bacilli seen in the tissues in bovine animals are smaller and straighter than human sputum, and do not present the granular or beaded appearance often observed in the latter. Professor Crookshank, however, states that he has observed that the bacilli found in the milk of cows with tuberculous mammitis were long and beaded, so that they nearly resembled those ordinarily found in human sputum. The research in the course of which these observations were made afforded another striking proof of the danger of using the milk from cows with tuberculous mammitis, and, as the differential diagnosis of mammitis in the cow is extremely difficult, the inference is obivious.

ASSERTED CURE OF NEURALGIA BY ROTATORY MIRRORS.—Dr. Luys, Physician at the Charité Hospital, records a case of dental neuralgia cured by rotatory mirrors. The patient was a man of thirty-five, who after an attack of typhoid fever became anæmic. He was subsequently troubled with frequent neuralgia and shooting pains in the teeth, in which no signs of decay were visible. Sulphate of quinine, antipyrin, anti-neuralgic pills, and injections with cocaine were employed without effect. Insomnia and great cerebral excitement were present. One of the sensitive teeth was extracted; two others were filled. The nerves in the region of the ear were finally sectioned. Finding every kind of treatment unsuccessful, M. Luys had recourse to the rotatory mirrors. The *séance* lasted from twenty to thirty minutes, and was followed by considerable relief to the patient, who simply lost consciousness without closing his eyes. After eight sittings the improvement was most remarkable. The swelling in the face disappeared, the patient's strength returned, and the pain in the head sensibly diminished. The patient's condition has continued improving.—*Lond. Med. Recorder.*

A DRAINAGE-TUBE PASSED THROUGH THE RECTUM.—Dr. Mariani describes in the *Siglo Medico* a case where a rubber drainage-tube was passed into the abdominal wound after the removal of a large dermoid cyst which adhered to the parietes, the omentum, and the liver. The patient was forty-six years old. The wound healed in a week, but the tube had been allowed to slip into the abdominal cavity. The patient complained of pain referred to the left anterior superior iliac spine. A week after the healing of the wound the tube was passed during defecation. It had probably caused inflammation of the adjacent large intestine, and passed through the softened walls of the gut. About twelve years ago an entire stump of an ovarian pedicle was passed at stool. This case occurred in Germany, and the patient recovered. The expelled body must have entered the intestinal canal in the same manner as in Dr. Mariani's case.—*Brit. Med. Jour.*

THE TREATMENT OF HYPERTRICHOSIS.

By Arthur Jamieson, M.D., C.M., London.

[*The Practitioner.*]

The removal of superfluous hair from the face is often a matter of great difficulty, and not unfrequently very unsuccessful. The hair will grow again in a provokingly persistent manner, and if too energetic treatment be adopted, a permanent disfigurement often remains to remind the practitioner of his too great diligence. I wish therefore to suggest a plan of treatment which I have found very successful in suitable cases for the removal of hypertrichosis, and I will briefly give details of an extreme case.

The first illustration, from a photograph, shows my little patient, three months old, before treatment. The whole right half of her forehead was covered, closely covered, with an overgrowth of long dark hair, some of the hairs being fully an inch long. The adventitious hair grew over the right eyebrow and eyelid, extended thence across the nose to the margin of the left eyebrow, and, upwards, a little to the left of the middle line, to the margin of the hairy scalp. On the outer side it grew in a line from the external angle of the right eye to a little above the meatus of the right ear. The child's appearance was, as far as that side of her face was concerned, exactly like that of a Skye terrier. I deferred doing anything till the child was three months old, and in the interval thought over a good many of the plans advised to remove superfluous hair from the skin. I thought them all inapplicable in this case, and finally resolved to risk the trial of the one I now venture to suggest.

When applying sodium ethylate for the removal of nævi, I had noticed that when the nævus was near the hairy portion of the scalp, if any of it were let to run around its base, the effect was a loss of hair where the ethylate had touched. I tried the effect of the ethylate on several small hairy moles, and, finding the results to have been very satisfactory, I determined to try it in this instance. Accordingly the child was put very fully under the influence of chloroform, the long hair cut short in a vertical line drawn down the forehead for the width of an inch, and sodium ethylate rubbed over the surface very freely and thoroughly, till the skin had an orange appearance. By the time the child had slept off the effects of the chloroform the pain of the application had ceased, so that the child was fairly comfortable. A little cold cream was then applied.

At the end of a fortnight the result of this first attempt was seen, and most satisfactory it was. The hair-follicles over the greater part of where the application had been made seemed destroyed, and a whitish skin remained. Curiously enough here and there some long hairs remained uninjured. At the end of a month I tried again, but this time I attacked the surface of the forehead from the eyebrow upwards, leaving the hairs of the eyebrow alone. The result was the same. Next time I applied the caustic from the margin of the eyebrow to the ear. Then I waited some time to see the result. When the child was a year old the forehead was fairly clear of hair; but the eyebrow and eyelid were still covered with long hair, and that from the eyelid was growing over the eye. I now very carefully applied the ethylate over the eyelid. There was, as might have been anticipated, a good deal of subsequent œdema of the lid, but it all passed off very nicely. The eyebrow now remained, and this I very lightly rubbed over with the ethylate, but this slighter application seemed to have no effect. A second attempt, however, was more successful, for whilst it did not destroy the hairs entirely, a new growth of weaker, shorter, and much finer hair sprung up. The subsequent progress of the case was slow. It consisted in touching from time to time the hair-follicles that had not been fully destroyed by the previous applications. The child, a healthy girl, is now over six years old, and the second illustration, which is from a recent photograph, shows her present appearance. Her mother writes to me that there is now no disfigurement, the skin hairless, smooth, and nice-looking, but I think the picture speaks for itself.

I wish to add, in conclusion, my conviction of the superiority of sodium ethylate in the treatment of hairy moles over any other method of treatment. That by electrolysis is often painful, always tedious, and only applicable for limited hypertrichosis, such as that on the lips or chin. In the case of moles where we want not only to remove hairs but also the discoloration of the skin as well, the use of the ethylate has given me better results than the application of any other agent.

Though I have used this method for several years, I have waited till now before bringing it forward, so that I might not without sufficient foundation add another to the list of new methods of treatment, and that I might feel sure that its further trial would not be found disappointing.

ELIMINATION OF POISONS.—In an exceedingly interesting and valuable Croonian Lecture on Chemical Structure and Physiological Action, recently delivered before the Royal College of Physicians of London, by Dr. T. Lauder Brunton, there is a passage in which he discusses the treatment of diseases depending upon infection of the blood or tissues by microbes. In this he calls attention to the difficulty of destroying or weakening microbes, once fairly occupying the animal economy, and the greater probability of success by promoting rapid elimination of the poisonous products of micro-organisms, as well as of the micro-organisms themselves.

One of the most important methods of such elimination is free purgation; another is active diuresis, and a third—not alluded to here by Dr. Brunton—is free sweating.

One of the best diuretics, Dr. Brunton says, is a free supply of water, and Ringer has pointed out the possibility of lessening the effect of poisons by washing them, as it were, rapidly out of the system. This plan has recently been followed by Sanquirico with very striking results. In his experiments he injected quantities of a weak saline solution directly into the veins, immediately after the poison had been administered, or just when the symptoms of poisoning began to appear. By treatment in this way he found that three times the ordinary lethal dose of strychnine had to be administered before death occurred. The poisonous action of chloral, alcohol, urethan, paraldehyde, caffeine, and aconitine was also diminished, but not very much, while that of morphine and nicotine was unaffected. In all cases the beneficial effect of the treatment was most marked when the diuresis was greatest. No doubt the effect of fluids is likely to be greater when they are introduced directly into the veins than when they are introduced indirectly through the alimentary canal, but the effect in both cases will be the same in kind, though different in degree.

The principles laid down in these statements are probably those which lie at the base of the empirical practice of hundreds and even thousands of years; and they furnish an interesting demonstration of the way in which reason often, by slow steps, demonstrates the wisdom of practices long since adopted under the spur of instinct or in imitation of Nature.—*Med. and Surg. Reporter.*

THE TREATMENT OF DIARRHŒA IN PHTHISIS.—Dr. Polyák, of Görbersdorf, gives in the *Orvosi Hetilap* the results of some trials he has made of two recently suggested remedies in the diarrhœa of phthisis, viz., silicate of magnesia in the form of talc which has been recommended by Debove, and lactic acid recommended by Drs. Sézary and Aune. About eight ounces of talc were well shaken up in a pint of milk, and this, or even a larger quantity, was given daily. As a rule, it arrested the diarrhœa after having been used for a couple of days, but if it was left off the diarrhœa returned. It was found, however, that patients liked the milk mixed with talc even better than ordinary milk, but it could not be taken for more than six or seven days, as after that time complaint was made of a troublesome feeling of oppression in the stomach and bowels. Dr. Polyák thinks it quite impossible that long-continued use of talc can heal intestinal ulcers. Lactic acid proved in his hands a much more satisfactory remedy. The initial dose employed was thirty grains per diem in four ounces of water; this was increased subsequently, but not more than seventy-five grains per diem were given. On the third day the diarrhœa and the pain were generally arrested, and during the next day or two the stools assumed their ordinary character. It was found advisable to continue to give small doses for some time longer. The patients bore the treatment well; it produced no diminution of appetite, and, unless continued for a long time, gave rise to no disagreeable symptoms. Dr. Polyák thinks it possible that even ulcers of the intestines may be healed by this means.—*Lancet.*

Bibliography.

ATLAS OF VENEREAL AND SKIN DISEASES, Parts 10 to 15, inclusive.

By PRINCE A. MORROW, M.D. Wm. Wood & Co., New York.

The consideration of eczema, begun in the ninth part, is continued in the tenth. The text covers thirty pages, and the illustrations are in four plates. Under a separate head is described eczema seborrhoicum, by which term Unna has designated and described a particular variety of eczema which has many forms, and is characterized by oiliness, itching, a peculiar circinate configuration, a yellowish color, and crumbling, fatty crusts. The term includes many cases formerly recognized as seborrhœa sicca. This form of eczema has called forth a number of papers and some discussion within the last few months. Considerable space is given in the text to the treatment, and in it a number of formulæ are included. In this fasciculus are also treated, impetigo, dermatitis exfoliativa, and dermatitis medicamentosa. The illustrations include psoriasis of the palm, eczema of the palm, and eczema rubrum of the leg, eczema seborrhoicum of the breast and arms (dry scaly form), and eczema seborrhoicum universale (mixed wet and dry forms), impetigo figurata, impetigo contagiosa, pityriasis rubra of the leg and sole of the foot, and of the palms and nails, dermatitis exfoliativa (acute), bullous eruption of the hands from iodide of potash, and ulcerating hydroa from bromide of potash. The discussion of drug eruptions is begun in this part and continued over a few pages in the eleventh fasciculus.

In the eleventh part herpes in its various forms is treated. Dermatitis herpetiformis is briefly noted. Pemphigus and purpura complete this part. The illustrations include five presentations of herpes, two of dermatitis herpetiformis, pemphigus vulgaris, pemphigus foliaceus, and purpura simplex and thrombotica.

The twelfth part covers the subjects of psoriasis, lichen planus, ruber and moniliformis, and acne. Psoriasis is illustrated with representations of psoriasis universalis, and of the hand and arm, and two wood-cuts of psoriasis of the hand. In the text the subject is briefly treated. The most interesting portion of this fasciculus is that pertaining to lichen.

Dermatologists within the last few years have energetically discussed and investigated the identity or non-identity of lichen ruber and planus. The Vienna school still teaches that the two forms are varieties of one disease; American dermatologists almost unanimously hold that they are distinct diseases.

The illustrations of lichen planus are from a recent paper by Robinson; that of lichen ruber and lichen ruber moniliformis are from Neumann. Acne, in its many forms, takes up the latter third of this part.

In part thirteen, molluscum epitheliale, verruca senilis, elephantiasis, leucoderma, alopecia areata, keloid, fibroma, xanthoma, rhinoscleroma, and xeroderma pigmentosum are succinctly presented. These are well illustrated.

Of greater general interest than the subjects just noted are contents of part fourteen. These include lupus erythematosus, lupus vulgaris, tuberculosis papillomatosa cutis, sarcoma, epithelioma, rodent ulcer, and leprosy. The plates include nine figures, and are exceptionally good. Leprosy, begun on page 289, is continued to page 297 in the last part of the work. The remaining topics treated are scabies, pediculosis, tinea versicolor, favus, and the various forms of trichophytosis. This brings us to the end of a work which, we venture to say, will not soon be surpassed in the excellence of its execution in every particular. A.G.D.

SECOND BIENNIAL REPORT OF THE NORTH CAROLINA BOARD OF HEALTH to the General Assembly of North Carolina. Session of 1889.

Raleigh: Josephus Daniels, State Printer and Binder, 1889.

In addition to the matter usally found in such reports, this one begins with a very able article by Dr. Wood, Secretary of the State Board of Health, on "Yellow Fever in the South: Its Effects upon Trade and Travel; the Dangers of Panic," "Garbage Destruction by Burning," and on several minor topics. The report shows, by tabular statistics, the mortality rate collected from ten or twelve towns for each month, the weather for the corresponding period, and the conditions of poor-houses and asylums.

At the close of the report is an appendix containing interesting articles on "The Causes of Death in North Carolina," by Dr. T. F. Wood; "Contamination of Foods with Metallic Poisons" and a "Report on the Analysis of Quinine, Bismuth, and Laudanum to Determine Adulteration or Impurities," by T. P. Venable, Ph.D., F.C.S.; "The Sewerage of Cities and Towns," by J. S. Ludlow, C.E., M.S.; "Public Water-Supply," by H. T. Bahnson, M.D.; "Duties and Responsibilities of County Superintendents of Health," by J. S. Tucker, M.D.; and "Some Gains from Sanitation," by J. W. Jones, M.D., President of the Board. The volume comprises 190 pages. J.M.F.

PULMONARY TUBERCULOSIS: Its Etiology, Symptomatology and Therapeutics.

By PROF. DR. H. VON ZIEMSSEN, Director of the Medical Clinic at Munich. Translated by DAVID J. DOHERTY, A.M., M.D., Instructor in the Chicago Polyclinic. Geo. S. Davis, Detroit, Mich., 1888.

This little monogram belongs to the third series of the Physicians' Leisure Library. That it is worthy of attention and profitable reading need not be stated. The name of Professor Von Ziemssen on the title-page is a sufficient guarantee of this. The translator says of it: "It is, I think, the most recent published utterance on the subject. The matter was delivered in the form of lectures to his pupils, and consequently some diffuseness and repetitions occur. The translation, though not elegant, is faithful."

In the first chapter, the author refers to the chaotic state of our knowledge regarding tuberculosis prior to the dawn of Koch's discovery, and the remarkable reconstruction of views which followed. His demonstration seemed to contradict some of the best established theories on that disease. Foremost among these was the doctrine of inheritability. Many facts add to the difficulty of determining the exact influence of heredity, since the infant is so beset by influences which may lead to the development of the disease, and from the fact that the disease when developed may remain for a long time latent at this period of life. Although heredity plays an important part, the author thinks that tuberculosis is directly contagious.

We cannot at present get along, he says, without the supposition of a predisposition, inherited or acquired.

In chapter three of the book are considered the invasion of the organism by bacilli, its defense, the vulnerability of the apex, the theory of phagocytes, and tubercular laryngitis, a disease which the author believes almost without exception secondary to tuberculosis of the lung, and curable.

Part second of the book, on the diagnosis of pulmonary tuberculosis, is full of useful information, but our space will not permit a review of it.

The third part is devoted to the treatment of the disease under consideration. It is remarkably complete, and embraces the best tried as well as the most relied upon methods that are in vogue at the present time.

The book is entertaining as well as highly instructive throughout, and its perusal will repay the reader, even though he should not confine himself to leisure time. The translation is excellent.

J.M.F.

IMMUNITY THROUGH LEUCOMAINES.

By EUSEBIO GUELL BACIGALUPI. Translated from the second French edition, by R.F.Raphael, M.D. New York: J. H. Vail & Co., 1899.

The mystery of preventive inoculation and vaccination seems to be approaching solution. A very plausible explanation is at least presented in this work. We are told in the preface to the first edition of this work that its object is the explanation of the action and nature of vaccination.

The author first presents the various theories which have been advanced in explanation of the phenomena of vaccination (using this term in its widest sense), and then the steps which led him to the belief that immunity is due to the production of ptomaines. We are told also that the conclusions of the writer are arrived at, not from experimentation, but from "reasoning and logic." Yet we find that a large amount of experimental evidence is presented in support of his theory.

In part three the author explains in a very interesting manner some of the phenomena of disease which have not hitherto been capable of satisfactory explanation,— the period of crisis, the variable duration of the same disease, the escape of certain individuals, etc.

The author closes the volume with a reply to the objections that have been raised against immunity through leucomaines, and an appendix containing letters from several eminent writers.

The book, aside from the valuable theory which it presents, is a very creditable production and well worth perusal.

STRATHPEFFER SPA: Its Climate and Waters, with Observations—historical, medical and general—Descriptive of the Vicinity.

By FORTESCUE FOX, M.D. (Lond.), Fellow of the Medical Society of London. Illustrated. London: H. K. Lewis, 136 Gower street, W.C., 1889.

This is one of the most elaborate and handsome little volumes that have been issued in the interest of a health resort. It is in reality an enlarged edition of an essay which appeared in 1887. The author gives in part one (medical) a history of the Strathpeffer Spa, a description of its climate, the chemical and medicinal properties of its waters and their principal uses. He endeavors to demonstrate by this means and the citation of cases, that this resort in the Highlands of Scotland is as good as any of those on the Continent.

The interest of the volume is much enhanced by the descriptive character of part two, relative to the picturesque country which surrounds the Spa. This is, in fact, the much more readable portion of the book, part one being in many instances rather prolix. The mechanical execution of the book is excellent. J.M.F.

THE finest botanical gardens in the world are said to be those of Peredinja, near Kandy in Ceylon. They comprise 150 acres. Among the curiosities are bamboos 100 feet high and nine inches in diameter, which in the month of July grow between one and two feet a day. India-rubber trees with immense roots three or four feet above the ground, when cut with a knife give forth a milky substance. Ginger, cloves, and jack fruit are passed in succession; most beautiful orchids, such as would command fabulous prices in Europe, are seen in profusion, with flowers of every shade and color. — *Pac. Drug. Review.*

THE

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THE

CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, August 10, 1889. *WHOLE VOLUME LXII.*

Original Articles.

OLD BILATERAL DISLOCATION OF THE ELBOW.

WITH REPORT OF TWO CASES.

By JOSEPH RANSOHOFF, M.D., F.R.C.S., Cincinnati,
Professor of Anatomy and Clinical Surgery, Medical College of Ohio.

CASE I.

"L. G., æt. 19, servant; admitted to City Hospital July 28, 1887, to M. east; first time in hospital.

"Present illness: About three months ago she fell from a bench four or five feet high, face forwards, throwing her hands forwards to catch herself; they were the first to impinge upon the floor. She says the first thing she noticed after the fall was that the back of both of her hands were on her shoulders; on regaining her feet she had excessive pain in both elbows, and found she had no motion of either elbow. Her arms were examined by a physician, who pronounced them fractured and treated them accordingly. After six weeks he attempted to straighten the arms, but failed.

"Examination: Dislocation backwards of both forearms, the olecranon in each being about one inch above the level of the condyles of the corresponding humerus. Arms are held in a position of incomplete extension and slightly pronated; tip of left olecranon is fractured. Head of each radius has its proper relation to its corresponding ulna. Flexion of the forearms is impossible, and the attempted movement causes much pain.

"On August 3, Dr. Walker attempted the reduction of the dislocation, but without marked benefit; on the 28th of August a second attempt was made, followed by very considerable pain in both elbows and swelling of the hands. Although this procedure was followed by some increase of movement, particularly in the right arm, the dislocation proved irreducible. A third effort at reduction, made by Dr. Ransohoff on the 16th of September, was not followed by any better result."

At the end of September the patient's condition was about as follows: Right arm held at an angle of about 100°; passive movements of forearm possible over an arc of about 30°, active movements about half as extensive. With this arm the patient is enabled to reach the lower portion of her spine. Supination and pronation very much limited. Antero-posterior diameter of elbows greatly increased; olecranon fully an inch above humeral condyles. Left arm firmly fixed at an angle of about 120°. Only by the use of considerable force can any movement of the joint be produced. Tip of olecranon one inch above condyles. Forearm fixed midway between pronation and supination. No tension of triceps posteriorly or brachialis anteriorly could be detected.

Without operative procedure the patient was hopelessly crippled. With the right hand she could care for her person. She was unable to clothe herself, unable to bring either hand near her mouth, to cut her food, or to sew. The right arm being the less useless of the two, I determined, after subcutaneous osteotomy, to reduce the dislocation of the left arm. On the 3d of October an incision one-half inch in length and to the bone was made over the olecranon about an inch from its tip. Through this the process was divided with an osteotome. Without much force the arm could now be brought to a right angle, where, after an antiseptic dressing was applied, it was retained by a plaster splint. The wound healed without any untoward symptoms. After the third week passive movements were instituted. On the 8th of November the patient left for her home. She had motion at the elbow through an arc of fully 45°. She was enabled to feed herself, to adjust her dress and hair, and perform fairly well all the functions for which she was dependent on others before the operation.

CASE II.

A. L., æt. 40, engineer; entered the Good Samaritan Hospital on December 22, 1888.

Eight weeks before admission, in jumping from his engine, he fell upon his extended hand, suffering a backward dislocation of the right forearm. Two attempts at reduction had been made, but without success.

The patient, on admission, was found to be an almost perfect specimen of physical manhood, the muscles being particularly well developed.

The right elbow is firmly fixed, the forearm and arm forming an angle of about 130°. The hand is nearly supinated, and motion in the upper radio-ulnar articulation is in abeyance. The apparent motion of pronation and supination is affected at the shoulder. Measurement from the tip of the olecranon to the radial stroid process shows a shortening of little less than an inch on the side affected. The region of the elbow is very considerably swollen, the parts being indurated but not acutely inflamed. Through the thickened soft parts at the bend of the elbow the broad, irregular lower end of the humerus can be easily palpated. The olecranon process, and by its side the head of the radius, can be felt above and behind their normal relations to the humeral condyles. Passive supination and pronation permit the movements of the radial head to be plainly felt beneath the muscular and integumentary coverings. With these relations of the osseous prominences there was no difficulty in recognizing, notwithstanding the tumefaction of the soft parts, the usual backward dislocation of the forearm, with an anchylosis which, though fibrous, was complete as far as active motion was concerned.

On December 25, the patient being thoroughly anæsthetized, the strong adhesions holding the bones in their abnormal positions were gradually broken up by such flexion and extension, pronation and supination as their positions permitted. Repeated attempts were then made to effect a reduction by the method usually employed,—that of Cooper, in which the knee is placed against the inner side of the arm, the knee pressing against the forearm to effect its separation from the humerus, traction being at the same time made from the wrist. Most persistent manipulation by the combined forces of Dr. Conner, who kindly assisted me, and myself, aided by clove-hitch appliances and continued for twenty minutes, failing to reduce the luxation.

Before proceeding to divide the triceps or ulna, I concluded to attempt reduction by hyper-extension, which has succeeded in the hands of a number of surgeons where Cooper's method failed. Fixing the humerus firmly to the table and carrying the forearm over its edge, I placed my knee against the olecranon; then, hyper-extending the forearm, the pressure of the knee forced the olecranon into its proper fossa, the coronoid process at the same time slipping over the articular surface of the humerus, and the radius also falling into its normal position. It was at once possible to flex the arm to its normal extent. The arm being kept at a right angle, an ice-bag was applied.

The operation was followed by very extensive swelling of the entire region; very severe pain was complained of in the elbow and shooting down the ulnar side of the hand, and within twenty-four hours it was evident that the integument over the olecranon would slough. An antiseptic dressing was at once applied, with a firm anterior splint. The sloughing area was as large as a silver dollar, and involved the subtendinal bursa. The discharge from this bursa became so troublesome that, to produce its final closure, it was divided longitudinally and packed with iodoform gauze. After eight weeks the wound was entirely closed. From the second week active and passive movements of the joint were made. When the patient left for home supination and pronation were nearly perfect, and the forearm as a whole could be moved through an arc of at least 90°, the power to extend being alone abrogated. With return of strength the functions of the arm will doubtless be perfect, with the possible exception of extreme extension. In a letter dated May 10, the patient states that in flexion the arm is as strong as ever, and that only in extension does he experience any weakness. There is also some contraction of the little finger, with inability to extend it; likewise a feeling of numbness,—both the result of injury to the ulnar nerve.

REMARKS.

These cases are presented in order to call attention to several interesting points. I believe that I am justified in bringing the first case before the Academy, for in looking over the literature of the subjeet I was able to find but one similar case, *i.e.*, dislocation of both elbows. This was reported by C. H. Smith, of New York. The patent was a boy, twelve years of age, who suffered a bilateral dislocation of the elbows, reduction being affected soon after the accident.

It is evident from the history of the first case that the physician in charge had not made a proper diagnosis. He had made a diagnosis of fracture and instituted treatment accordingly. There can be no question but that dislocation of the radius and ulna is frequently mistaken for fracture of the lower end of the humerus. As a rule, a great amount of blood is thrown out, the capsule being ruptured, the muscles bruised, and a large amount of swelling existing around the joint within twelve hours after the accident.

It is usually laid down that if the three osseous prominences at the joint be borne in mind, and the relation they naturally bear to one another, no difficulty will be encountered in diagnosis. But when there is much swelling these points cannot always be made out. But there are several symptoms that point to the true condition. In dislocation of the elbow there is absolute impossibility to flex the arm. The coronoid process is carried into the olecranon fossa, and the arm is held at angle of 120°. In fracture near the joint the forearm can be flexed upon the arm, although the act may be accompanied by pain. The increase in the antero-posterior diameter of the elbow is another unfailing sign. Another feature of dislocation of the elbow is lateral movement. This is impossible even in fracture of the lower end of the humerus. Reduction of such dislocation can usually be affected without much difficulty. In old standing cases, however, the difficulty is increased with every day, and the condition is much more deplorable than that found in unreduced dislocation of the shoulder. The arm, in the former case, is left in a position least desirable.

In the second case I am certain that a correct diagnosis was made, and that a temporary reduction was effected by the physician first in attendance. Whereas recurring dislocations, except of the shoulder, are uncommon, they do occur in the elbow when, as probably was the case here, the dislocation is associated with fracture of the coronoid process of the ulna.

In no other joint is delay in affecting a reduction more hazardous than in the elbow. In 1877 Fesq reported a case in which all efforts to reduce failed as early as the eighth day after the accident. On the other hand, not a few instances like those presented above have been recorded, in which, after the lapse of six and even more months, reduction was effected by the means employed in more recent cases.

In the second case reported, I resorted to the method of hyper-extension, a method usually attributed, in this country, to Waterman, and described by him in 1869. But Liston had long before suggested the plan, and German surgeons since the time of Roser rarely employed any other. Moore, of Rochester, has also been successful with it in cases in which the older methods failed him.

In cases of long standing, where reduction cannot be effected by the ordinary methods, the surgeon has a choice of a number of operative measures. Much can be accomplished by division of the triceps when this muscle is much contractured. In neither of the cases presented was the firm contraction present that would have warranted the division of the muscle. The difficulty in reduction is generally to be attributed to the fibrous adhesions. Nevertheless, Sayres, following the practice of Neuman and Nelaton, effected reduction in several cases after division of the triceps. The latter procedure should be adopted before too much force is brought to bear on the front of the elbow, in order to avoid laceration of the blood-vessels and nerves, such as has occurred from excessive pressure brought to bear on the axilla.

If the plan of hyper-extension had failed in the second case, subcutaneous osteotomy would have been resorted to, as in the first case; if this had failed, excision would have been performed as a last resort. The first case so treated was reported by

Marshall, in 1871. The Germans quickly adopted this measure, and have reported a number of cases of excision of the elbow joint for the relief of inveterate dislocation of the elbow.

Yet the operation should always be left to the last. Excision, under such circumstances, is accompanied by much difficulty. The operation as usually practiced for tubercular disease is rendered rather easy by the softened condition of the osseous and fibrous structures. The thickening and induration of the latter in joints that have long been dislocated, the deposit of new material in the natural depressions of articular surfaces, and the firm contraction of the superposd muscles add difficulties to the operation of excision in these cases, such as are not encountered in any other lesions in which the operation is indicated.

With a number of surgeons the typical excision for inveterate dislocation has been replaced by a temporary division of the olecranon. When, in these cases, the process last named is divided by two lateral incisions, the fibrous adhesions holding the displaced bones in their abnormal positions can be easily divided, and reduction thereupon effected. Immediate suture of the divided ulna can then be practiced. This arthrotomy, devised by Trendelenburg in 1879, or modifications of it suited to individual cases, will doubtless find many followers in cases where less severe measures have been fruitlessly employed.

Castration of Criminals.—The following is the recommendation of an enthusiastic socialist who proposes castration as a means of limiting crime. The good effect of this kind of punishment would be fourfold:

1. No offspring with an inherited tendency to commit crime.
2. An added terror to the punishment inflicted for breaking the laws.
3. A gradual improvement in time of the morals of the public at large.
4. An improvement in the disposition of the person operated upon.

Removal of Freckles.—A wash of equal parts of lactic acid and glycerine is said to remove freckles, and to be harmless to the skin.

REPORT OF A CASE OF METRORRHAGIA.

By A. D. Stapleford, M.D.,
Cincinnati.

On August 5, 1888, I was called to see Mrs. L., who was suffering from metrorrhagia.

Patient, æt. 31 years, was the mother of five children; youngest child three years old. Thirteen months ago she thought she was in a "family way," as she missed her regular menstruation. To avoid this she took three doses of twenty drops each of spirits of turpentine. The next day she was taken with violent pains and hemorrhage from the uterus. She sent for a physician, but before he arrived was given twenty drops of laudanum, and this quieted her pain somewhat. When the physician arrived he gave her a teaspoonful of fluid extract of ergot, and after waiting two or three hours told her that she had probably had a miscarriage, and that the fetus had passed away unnoticed in a clot.

Three months after she was again attacked with hemorrhage, which continued for ten days. She thought it was her regular menstruation, and did not send for a physician. Four months passed, when the hemorrhage again occurred. Following this the hemorrhage occurred, off and on, up to the time I was called, when it became alarming.

Abdominal palpation: Large mass, larger than clenched fist, in the right iliac region; hard, movable. This mass she said she noticed about a week after taking the turpentine.

Examination per vagina: Os uteri directed to the left, and slightly dilated. On bimanual manipulation the abdominal mass could be pushed to the median line, which brought the cervix into proper position. There had been no pain at this time, except uterine tenesmus.

I tamponed the vagina and prescribed 1-6th gr. morph. sulph. every four hours.

Visited the patient next day and found there had been no recurrence of hemorrhage. She had slept well during the night. No pain. Syringed the vagina with carbolized water.

Ten days from this time I was called again, and found hemorrhage alarming.

Patient was nervous and restless. Os uteri dilating, with pains regular. Tamponed os, and waited. Several pains occurred, when they suddenly ceased. On introducing the finger found a large mass in the vagina, which I extracted without difficulty. It was almost round, with a deep sulcus on one side. It was soft over the whole surface to the depth of half an inch, the centre being hard and cretaceous. The outer soft part could be picked off in small particles. Sweeping my finger through the sulcus, there was disclosed a cavity, and my finger brought away a small fetus about two inches long. This article was peculiar; it was, in fact, nothing except the skin of a fetus. The arms and legs were like threads, while the body was but the outer skin, as likewise was the head.

The patient made a good recovery, and six months after I was called to see her for bronchitis, and found her advanced to half-term in pregnancy. In making an examination of her chest I discovered a mitral systolic murmur.

Two months from that time I left the West for Cincinnati, and one month after I was informed by letter that while she was walking in the yard she suddenly fell dead.

The probability is that this mass had remained in the uterus for nearly fourteen months. It is a very peculiar case to me, for the reason that, outside of the occasional attacks of hemorrhage, it occasioned very little annoyance. It is almost hard to believe that this woman, while in this condition, worked for two weeks in the hay-field, assisting her husband to stack hay, which did not cause even hemorrhage at the time. At the time I saw her first, ten days before the contents of the uterus were expelled, she was in splendid condition physically—well developed and with good color in the face.

At my first visit I informed her that she was suffering from threatened miscarriage, and took measures to prevent it. I did not realize the real nature of the case, thinking that she was about six weeks or two months advanced in pregnancy, and that she had miscarried thirteen months before; that the intermediate metrorrhagia was a menorrhagia. But the character of the expelled mass leaves little room for doubt that the impregnation that was sought to be interrupted at six weeks or two months gestation did not make its exit for over thirteen months thereafter, and that in this case the uterus tolerated a foreign body, under circumstances that were decidedly unfavorable for its retention, for a longer period than we are in the habit of presuming it is possible for it to do.

North Fairmount.

PHENACETIN IN THE TREATMENT OF NEURALGIA. — According to Dr. Ott (*Zeitschrift für Therapie*, May 15, 1889), phenacetin, in doses of from seven and one-half to seventy-five grains daily, possesses most marked value, according to his experience, in the treatment of neuralgia of peripheral origin; while it is without action in the treatment of neuralgia dependent upon disease of the brain or spinal cord. Dr. Ott administers the remedy in the form of a powder enclosed in capsules, in doses of seven and one-half grains, and has never had occasion to use larger amounts. One or two of these powders, given at intervals of an hour, are found to succeed easily in arresting suffering. His most brilliant results are stated to have been obtained through the use of phenacetin in hemicrania, and in occipital neuralgia, which so frequently occurs in women during the menstrual period, or in men as a consequence of marked hemorrhoidal congestion. In one case of hemicrania he had marked success even after the patient had taken antifebrin without avail. In pure trigeminal neuralgia it only produces transient relief, so that final resort must be had to other remedies, such as quinine, salicyl, or electricity. He reports two cases of cardialgia in which there was marked relief, as well as three cases of intercostal neuralgia. On the other hand, it produced no effect in an extremely severe case of sciatica, even though the dose was increased to seventy-five grains in twenty-four hours. Unfortunately, the economy appears to be accustomed to the use of phenacetin, and, after continued employment, its analgesic properties are lost.—*Therapeutic Gazette.*

MOUTH WASH.—The following wash for shrinking the gums is given by various French journals of Pharmacy: Tannic acid, 8 gm.; tr. iodine, 5 gm.; iodide potass., 1 gm.; tr. myrrh, 5 gm.; rose-water, 200 gm.; mix. A teaspoonful in a third of a tumbler of water.—*Canada Lancet.*

CONSUMPTION AMONG THE SIOUX INDIANS.

A Paper read before the Dakota Medical Society, June 22, 1889,

By **Fred Treon**, M.D.,
Agency Physician.

In order to fully comprehend the nature and cause of any disease, it is necessary that we inquire into the previous history of the patient,—the climatic and hygienic surroundings, habits, daily avocation, and the kind of food he subsists upon.

It is not my intention in this paper to deal with the many theories, in detail, that cluster about the doctrine of consumption, nor shall I attempt a description of the various stages of phthisis pulmonalis. I shall endeavor to confine myself to a disease which is very prevalent among the Indians, and which I have chosen to call consumption because the name conveys the idea of a wasting disease, and which, aside from being the one universally adopted, is well suited to their trouble. I shall try to set forth some of the more apparent causes of this malady, and leave you to make your own deduction as to the origin of the disease.

Living on an Indian Agency at least affords one an opportunity to study and acquaint one's self with the diseases to which the Indians are liable, and consumption is the one disease which cannot fail to attract the attention of the most unobserving who goes among these aborigines to live. It is a disease, too, that has excited profound attention all over the world; and upon the subject the most able articles have been published, but the most scientfic investigation and research have thrown but little, if any, light upon the treatment and eradication of the disease. True, Koch has proven pretty conclusively that phthisis is a germ disease and is due to certain bacilli, but beyond that his microscope has failed to enlighten us with any degree of satisfaction.

During the short time that I have been physician at Crow Creek Agency — less than three years—I have entered in the Medical and Sanitary Record of my office 73 cases of consumption, 35 males and 38 females; of these 68 have died, 33 males and 35 females. Eight of this number were under five years of age. This mortality, out of a population of less than 1,200 people, from one disease alone, may truly be considered alarming; and the question naturally arises, What is to be the outcome for the people if the ravages of the disease are not staid? For it must not be forgotten that these people are numerically on the decrease, that the annual mortality is greater than the birth-rate; and, inasmuch as they are closely intermarrying, with a fatal hereditary diathesis on both sides of the union, the outlook for their offspring is indeed a very serious one.

The romance has nearly gone out of the Indian's mode of living. Truly may it be said that he is at this present time undergoing a very radical change, a change from a nomadic or wandering life to that of a settled or civilized state. This of itself is enough to weaken the race, as is shown in the history of every people who have been forced by the onward march of civilization to relinquish their primitive habits of living.

What are some of the habits of these people that affect their health? Let us draw the veil from their daily life; let us push aside the curtain and peer into the "tepi," or home of the Indian. We may then be able to arrive at a just conclusion respecting the cause of the disease upon which we attempt to write. As we gaze upon the inmates of these houses we are first struck with the amount of filth we see, and a disagreeable odor which greets our nostrils—an odor that is peculiar only to an Indian's quarters. It is a mixture of smells, and none of them are to be preferred to the fragrance of a rose geranium. The most pronouced of these odors is the one that is exhaled from the Indian's body, and is doubtless due to the colored pigment in his skin; it is not improved, but rather intensified, by its passage through the clothing he wears. If you were to go with me on some of my visits to these people in their homes, you could better appreciate what I am trying to describe to you. But let me portray to your mind's eye briefly. In these houses we find but little or no ventilation; the family cook, eat and sleep in one room; in this room are crowded a half dozen or more men, women and children; around the room hangs plenty of green beef, upon which the flies may light and deposit their quota of living germs to be taken into the stomachs of these people. You will also find in this illy-ventilated, over-crowded, filthy room a half dozen or more dogs, and frequently as many squealing puppies with their eyes scarcely open. The beds are positively too filthy to describe; usually a wooden bedstead is used, with too scanty bed-clothing, were it not for the fact that the inmates seldom remove their clothing upon going to bed; and when they arise ablution is rarely, if ever, performed. Of course, these houses literally swarm with flies in the summer, and are the habitation of every imaginable vermin. If you question this, come and make a visit to the Agency and be convinced. "Seeing is believing" is an old and true adage. Go and see that I have not told the half. There are, however, exceptional cases to this statement.

The Indians are very fond of dancing, and go frequently to these revels. They are nearly, if not quite, nude, and the skin is painted in various colors. Their dance is a very exciting one, and they necessarily get warm and perspire, and, being unprotected, are exposed to severe draughts of air, for it must be remembered that frequently these carousals are held in the open air. This sudden checking of the sweat-glands, with their predisposition to pulmonary troubles, is sufficient cause for the ground work of a lung disease. Then, too, the women and girls may frequently be seen sitting for a long time upon the damp ground, or in the melting snow; such exposures are likely to affect the lungs.

Another cause may well be mentioned in this connection as exciting lung troubles. The Indian medicine men are the source of much evil among these people, and their treatment of the sick often barbarous and cruel. I will only make mention of one of their customs, and I describe it because of its direct bearing upon the subject in hand. It is the sweat-bath, and it is an old custom. Dr. T. S. Williamson,(1) an early practitioner and missionary among these people, describes it as their most efficacious remedy for the removal of disease. He says also that it is resorted to not only in cases of pain and sickness, but as an antidote or purifier. A small tent is made by bending long poles, so as to have both ends in the ground; over this frame is thrown blankets, and the air as nearly as possible excluded. They heat stones outside of the tent; take off all their clothing excepting the breech-cloth, under which they put a handful of sage brush; they go into this small tent, taking along the heated stones, close down the covering and pour water upon the heated rocks. This generates a terrific steam, and the inmates sweat profusely. I have counted a dozen large men going into one of these small tents at a time. When they come out they stand for a long time unclothed in the open air, or sit upon the ground and smoke before they dress. Such abrupt changes make their results felt.

Now let me tell you about the slaughter and consumption of beef by these people. Saturdays, early in the morning, the cattle are shot down in the corral for them and the Indians drag them out, skin and cut them up in the offals. I have observed them frequently, while slaughtering, eating the warm liver, tallow, and often the entrails and great quantities of raw beef. In fact, much of the beef is dried and pounded up and eaten without cooking. This will doubtless seem unreal and far-fetched, yet I have to tell you that no part of the beef, excepting the bone, is lost to the Indian. Frequently they eat animals that died of disease days before, and, to my mind, here is a very good solution to the trouble. Principal McCall, of Glasgow Veterinary College,(1) in a report on "Tuberculosis in Cattle and How to Deal with it," has made some very startling statements on the subject. He gives a general account of the disease and of the means whereby it has been experimentally propagated among the lower animals, adopting the bacillary theory of the origin and the identity of the bovine and human varieties, and asks: "Is it but reasonable to conclude that bovine tuberculosis is frequently transmitted to the human subject by eating the flesh and drinking the milk of tuberculous cows?"

Dr. G. J. Johnson, in a paper(2) on "Tuberculosis Among the Animals," read at a meeting of the Society of Medical Jurisprudence last November, said, while it was almost impossible to estimate the prevalence of animal tuberculosis, he believed that in a certain percentage of all cattle the bacilli of the disease existed. To substantiate his position he stated that,

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1 Rigg's Work Among the Indians, p. 446.

1 Practitioner and News, 1886.

2 Ibid. Paper on "Tuberculosis Among the Animals," p. 200.

in the few countries where no cattle exist, a case of tuberculosis has never been known among the inhabitants; and hence he claimed that if tuberculous cattle could be exterminated consumption would die out among men. It has also been demonstrated, by such eminent authorities as Koch and Pasteur, that the bacilli of tuberculosis is found in cattle and is frequently transmitted to the human subject.

Dr. R. W. Taylor, of Louisville, Ky., in an article on this subject,(1) says: "I think it is pretty generally conceded that eating tuberculous meat may produce the disease;" and he adds that "Dr. Bang, of Copenhagen, has recently found bacilli in milk from a cow with tuberculous udders."

It would not be difficult to trace these microbes from the stomach to the mesenteric lymphatics, and even through the circulation, to the lungs. Entering the blood with the chyle through the thoracic duct, finding their way through the left subclavian vein to the heart, from whence they may be sent with the blood to the lungs, where a nucleus or home is often, doubtless, found for the parasites. Bartholow(2) says: "Every germ needs a specific soil for its growth, so the specific infective material of consumption must fall into a properly prepared organism to proceed to full development." It is needless for me to say that the mesenteric glands and lungs of these people are a well cultivated soil for the bacilli of tuberculosis.

I have seen the receiving of cattle for the slaughter issue since I went among these people to live, and I have seen on several occasions steers received with large lumps upon their throats and jaws, commonly known as "big-jawed cattle" — actinomycosis. These cattle are slaughtered, and whether they have tuberculosis or not, are at least diseased and unfit for the stomach.

Dr. G. Sims Woodhead(3) says: "Actinomycosis is a disease which was long mistaken for tuberculosis, and for other forms of new growths. . . . The fungus itself appears as a rose-shaped mass, with a central mycelium from which radiate the conidia or club-shaped masses. As these grow they set up around themselves a proliferative irritation, by which a structure similar in most respects to that of tubercle is formed;" and he adds: "In cattle the positions in which the disease most frequently occurs are the lower and upper jaws and first part of the alimentary canal; in the human subject the soft parts of the neck, the mediastinal tissue and the lungs."

Supposing that only one out of a thousand cattle received be affected with tuberculosis or actinomycosis (Dr. Brush,(1) of New York, has recently said that he did not believe that less than fifty per cent. of all dairy cattle were affected with tubercle), from the manner of dividing the beef it is possible, and highly probable, that one hundred persons may become inoculated by a single diseased animal. I have somewhere seen it stated that Pasteur has demonstrated that cooking the beef does not destroy the bacilli.

I cite these facts to show you that, were these people free from an hereditary tendency, yet would they be liable through this channel to the disease. But are they free from this tendency? For more than a quarter of a century these people have been dying with this malady, and to-day we find their offspring a weak and sickly race, with the seeds of disease sown at birth.

Much has been said recently about syphilitic phthisis, and I am forced by circumstances to notice it in this connection. The medical records of this and other diseases during the early days of the whites among the Indians were only imperfectly kept and are very meagre, and throw but little light upon the subject. It is a fact worthy of note that the Sioux Indians are now quite free from primary syphilis. Dr. Henry F. Livingston, in a letter to me,(2) says: "I was physician and acting physician at Crow Creek Agency for about twelve years, having entered upon my duties in 1867, . . . during which time, among lung troubles and other diseases, were a few cases of secondary syphilis. My observations were that lung troubles gradually increased. These Indians were remarkably free from syphilis, as well as other venereal diseases."

Dr. A. C. Bergon, of Sioux City, (3)

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1 Ibid.

2 Bartholow's Practice of Medicine.

3 Woodhead's Practical Pathology.

1 Journal of American Medical Association 1889.

2 Private letter.

3 Private letter.

says: "I was Post Surgeon at Fort Hale, Dak., for about five years prior to May, 1883, and during the greater portion of the time was physician for both Agencies.(¹) During that time I was not called upon to treat an Indian, either male or female, for venereal disease of any kind whatever, nor a soldier who had contracted any form of venereal disease the source of which could be traced to the Indians. . . . On the other hand, tuberculosis seemed to be quite prevalent among them."

The office record shows that my predecessor, Dr. W. L. Gullett,(²) entered thirty-seven cases of consumption from June, 1883, to October, 1886. His mortuary for the same time shows twenty-seven deaths from this disease, but the records for that period are clear of venereal troubles. I think I could count all the cases of venereal diseases that I have seen among these people on one hand. But the early history, as above stated, is not clear; perhaps the most authentic evidence on prehistoric syphilis in America is to be found in a paper by Pro. Joseph Jones,(³) on "Syphilis Among the Aborigines of this Country," in which he demonstrates the early existence of syphilis among these people by the skeletons found in ancient burial places in Georgia, Tennessee, Kentucky, Louisiana and Mississippi. The marks of syphilis in the bones exhumed have been traced by Dr. Jones from the Valley of the Cumberland to the Gulf of Mexico. Dr. Jones says: "The diseased bones which I collected from the stone graves of Tennessee and Kentucky are probably the most ancient syphilitic bones in the world;" and he adds: "This discovery appears to be of great importance in the history of specific contagious diseases, in that it confirms the views held by some pathologists, that syphilis originated in the western hemisphere."

Perhaps Cyrus Thomas(⁴) has done more than any one else to prove that there is a connecting link between the Mound-Builders and the modern Indians of our country. And while the evidence, as regards the unbroken chain, admits of a possible doubt, yet syphilis has been found among the Indians from time to time, and it is highly probable that the disease has become so thoroughly incorporated into the blood of the race that each generation is protected from primary syphilis, as by inoculation, and in place of it they now have scrofula and tuberculosis. Bumstead and Taylor(¹) appear to me to make some conflicting statements on this subject. They say that "syphilis is always transmitted as syphilis," and that the theory of some that syphilis, especially in its tertiary form, may be transmitted to the offspring as scrofula, phthisis or rickets, is utterly untenable; but a few lines down on the same page they say. "There are not enough facts upon which to base positive conclusions regarding the possible production of tuberculosis by hereditary syphilis."

Considerable stress is laid by Dr. Frank Donaldson, Sr.,(²) of Baltimore, on the influence of sea air upon what he calls syphilitic phthisis.

Dr. Edward Bruen,(³) on "Syphilitic Diseases of the Lungs," says: "In the progress of syphilis there is also a tendency to catarrhal processes through anæmia and damaged general health, which may predispose certain cases to an ordinary type of phthisis. The origin of the formation in both tubercular and syphilitic phthisis is similar, viz., the arterial, lymphatic and peri-bronchial sheaths, spreading thence to the interlobular connective tissue. It is therefore not surprising that it has been difficult to differentiate the tubercular from the specific forms of phthisis, and Goodhart asserts that there is no histological difference between syphilitic and tubercular phthisis except that the former is more vascular."

I quote these authorities to show you that it is believed that syphilis does change, degenerates into or produces a disease similar to phthisis. I cannot explain to you the histological changes that are necessary for the disease to undergo, or whether it is ever possible for the germs of syphilis to become the true bacilli of consumption; but I am convinced that syphilis will produce a disease very similar to phthisis pulmonalis. Prof. Bartholow

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1 Crow Creek and Lower Brule Agencies.

2 Records of Indian Agency.

3 New Orleans Med. and Surg. Journal, June, 1878.

4 American Antiquarian, May, 1885.

1 Bumstead and Taylor's Venereal Diseases, p. 797.

2 Journal of American Medical Association, June, 1887.

3 Pepper's System of Medicine, vol. iii, p. 448.

says:(1) "There are nodules of syphilis, of lupus, etc., that cannot be distinguished in respect to minute structure from the nodules of tuberculosis; but the latter differs from the former in being specifically infectious."

In this connection I might say that the sea air, in my experience, has not been beneficial to these people; but, on the other hand, rarely ever fails to hasten the fatal end in this disease. This has been satisfactorily demonstrated by sending the children of these people to Hampton, Va., to school. There are comparatively few of them who do not develop while there this disease, notwithstanding they are examined and supposed to be the healthiest subjects among them. So diastrous has the result of the change been that in many instances the people are unwilling to send their children there to be educated. I have opposed it, but for no other reason than that the change is too violent and results badly for them. I believe I speak the truth when I say there is not a sound one among them. Out of forty boys and as many girls examined at the Immaculate Conception Mission School, at Stephan, Dak., last fall,—whose ages ranged from seven to seventeen,—forty-nine of them had dulness over the apex of one or both lungs, and twenty of them had enlarged lymphatics or scrofulous sores on their bodies.

Seven years have elapsed since the contagion of tuberculosis was alleged to have been discovered, and nearly all observers have now confirmed the views of Koch. These people furnish abundant evidence that they yield readily to the bacillus poison when previously they have been in fair health. The bacillus, it must be admitted, is ever present in phthisis, and we are now forced to accept it as the full explanation of tuberculosis. It is now conclusively demonstrated that this disease may be propagated by the inhalation of dried bacillus from the expectoration of diseased persons, and whether the bacillus of Koch continues or not to be regarded as the agent of infection, it must still be admitted that strong reasons exist for adhering to the view of the contagious character of phthisis. If it is true that the disease is sometimes communicated by kissing, is it not reasonable to suppose that the Indian habit of smoking the pipe and passing it from man to man until a dozen or more have had the end of the same pipe-stem in their mouth furnishes a common carrier for the bacilli of the disease which are to be found in the sputum, and the manner by which the contagion of the disease may be communicated? "In 1867 Dr. Budd published a paper in the *Lancet*," says Dr. Bartholow,(1) "in which he maintained that the disease is communicable, and that the tuberculous matter in the sputum contains the specific infective material." Too much care cannot be exercised by those who are, by circumstances, forced to remain with those suffering from phthisis.

The symptoms of this disease among the Indians differs but little from that of the consumption found among the whites. I believe, however, that they have more frequent and violent hemorrhages. I have been often called to see the most robust looking ones, who were suffering from hemorrhage of the lungs. About one year ago I was summoned in great haste to see "Red Hail," a stout, healthy-looking Indian. He was having a most violent hemorrhage. I gave him ergot and common salt, and in a short time the hemorrhage was under control. Afterwards I examined him and was convinced that there were tubercular deposits in his lungs. I put him upon the syrup of hypophosphites with cod-liver oil, and instructed him to keep quiet; but in about two weeks from that time, while lifting a heavy bag of grain, another hemorrhage came on, and being some distance from the Agency died before aid could reach him.

An Indian very rarely has rigors, and I have yet to see them have a pronounced chill with consumption. The night-sweats that are so annoying to whites are often not found in this trouble among the Indians. The children, being conceived and born under such unfavorable circumstances, frequently have, as might be supposed, what our text-books describe as acute, quick, or galloping consumption. Perhaps the symptom to which the physician's attention is most frequently directed in the cases among the children is a looseness of the bowels; at times it assumes the appearance of an acute attack of dysentery; the child grows weak, becomes emaciated, and often refuses food, while at

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1 Bartholow's Practice of Medicine, p. 381.

1 Ibid.

other times it possesses a ravenous appetite. At first the mesentery alone appears to be affected, but later on a cough sets in, dulness on percussion is perceptible over one and sometimes over both lungs at the apex, and not infrequently at the base. Mucous and crepitant rales are distinctly heard. Expectoration of a tough, mucous character, and often frequent and copious hemorrhages, are present. The patient sinks and dies from asthenia.

Of the treatment I can say but little. The people as a people have much to learn. Concerning the laws of health, of hygiene and diet, they know little or nothing. And until they have put off the shackles of ignorance and superstition that are binding them down and making them worse than slaves, medical treatment will be of but little avail. They are, indeed, with their splendid odportunities, rich agricultural resources and monetary advantages, the most miserable of beings, and true objects of pity.

I shall make mention of but one remedy in this paper; that one has proven more successful than all the rest in my hands, and its effect has been at times truly marvelous. I have come to regard it as the *sine qua non* or sheet anchor in treating consumption among the Indians. I refer to the alcohol treatment. Alcoholic stimulants in the treatment of this disease is no new discovery, but I doubt if there is any better. I have seen these people apparently in the last stages of this disease when put upon alcohol so far improve as to get up, regain flesh, and in some instances the disease was unquestionably arrested. I give it as freely as it can be taken without discomfort, or without undue excitement of the circulation or nervous system. In my experience it is much more beneficial than the carbonic acid and sulphureted hydrogen gas enemata, known as Bergeon's method. I have not used it in the Indian country, but among the whites it was a failure in my hands.

One cannot administer to these people any remedy with a feeling of certainty that it will be given as he directs. But few of them have any idea of our plan of reckoning time, and medicine must be given by the sun and at intervals of six hours or three times a day, and even then an Indian is liable to drink the contents of a bottle at one time.

While the Indian may be said to be a patient sufferer and possesses undoubted courage and fortitude, yet he sometimes gives up and dies when you least expect it. At the present mortality rate these people will soon be extinct as a race. The only hope for them to perpetuate lies in their ability to speedily change their present mode of living. This can only be accomplished through the instrumentalities of the school. Education must do for them what nothing else can do, and it will require at least two more years before this work will be effectively felt in their home life. Too much praise cannot be given to teachers, missionaries, and to all who contribute to this work. And the Indian Department can do nothing better for these people than to expend the major part of the appropriation made by Congress for school work. And every one who is sent to an Indian agency should be a conscientious and competent educator, be they teacher in the school or farmer. The erection of well ventilated houses and hospitals for the aged, sick, and infirm, together with education, training them in every branch of mechanical, farm, and household work, should, in my judgment, constitute the whole aim of our government in the discharge of its duty toward these people. The weekly system of issuing rations is a degrading curse; it encourages indolence, and ought to be done away with.

There is, among these people, a wide field for scientific research in the study of this disease; an opportunity for a physician to do good and distinguish himself, but the people must first be educated to a degree where post-mortems will be allowed and scientific investigation be made possible. Then may the physician be able to arrive at a just and accurate conclusion as regards the cause and relation of consumption, scrofula, syphilis and actino-mycosis. And when a rigid examination of the cattle for slaughter as regards their freedom from disease, is enforced by the government; and the inspection of cattle be not as regards weight and age, but according to their ability to come up to a certain health standard, to be fixed by law; and no animal that cannot stand the test of a competent veterinary surgeon's examination is received—when that time comes and not until then need the people hope to be freed from the plague and be able to say, "Live and be well." Then it may be proved that these people have not phthisis pulmonalis and scrofula at all; and it will not be surprising if it is demonstrated that in place of it they have actino-mycosis and syphilis in a latent form, manifesting itself through the lymphatic system. Indeed, many authorities—among them the late eminent Dr. Gross, Sr.—claim that there is no such a disease as scrofula, but that the disease so called is syphilis *per se* in an altered or changed form. And while the evidence is by no means clearly demonstrated as to actino-mycosis, yet to my mind is sufficient to warrant the theory advanced in this article. And I shall, if I remain in this country, force it to a demonstration or a *reductio ad absurdum*. In concluding this article I beg to say that it is a fact worthy of note that, while the Sioux Indians were living in their wild and independent state and drawing no rations, but subsisting upon wild game, they were nearly or quite free from consumption. With the beef and civilization came the growth and spread of this disease, and from year to year it has been on the rapid increase. There is, however, one thing in their favor. I believe the climate they live in is surpassed in very few places in our country.

June 22, 1889.

TREATMENT OF PULMONARY TUBERCULOSIS BY CAMPHORATED NAPHTHOL.—At the *Société de Therapeutique*, M. Fernet gave an account of his treatment of pulmonary tuberculosis by injections of camphorated naphthol into the lung by means of a Pravaz syringe armed with a long needle plunged into the first or second intercostal spaces. The dose was three drops of the camphorated naphthol, of which one was of pure naphthol. Of four patients three were notably improved, the expectoration diminished, and the physical signs were much lessened. M. Dujardin considered that the treatment was not rational, while M. Giumbert said that he employed naphthol dissolved in oil in subcutaneous injections at the dose of ten drops, and that he found the patients improve considerably under its use. Every second day he made an injection, but he considered that intra-pulmonary injections were dangerous.—*Med. Press and Circular.*

ACTINOMYCOSIS IN THE HUMAN BEING.

[*London Medical Recorder.*]

Dr. Roman von Baracz reports three such cases in the *Medicin.-Chirur. Centralblatt.* The following is the third: A woman aged thirty years, and married for seven years, had ten years ago a dental fistula which, after extraction of the diseased tooth, healed up, leaving a small cicatrix on the right cheek. Four weeks before the doctor saw her, lock-jaw set in, a bluish-red spot appearing with considerable swelling of the right cheek above the alveolar process of the right lower jaw. This swelling increased from day to day and then went down again. The patient could only with great pain open her mouth half a centimetre wide. The dentist had removed the roots of two molar teeth from the right lower jaw, whereupon the swelling went down and the lock-jaw ceased, but an abscess formed on the above-named spot. Baracz found in the subcutaneous tissue of the right cheek in the middle of the right alveolar process of the lower jaw an abscess of the size of a pea, which distinctly fluctuated, its skin being reddened and thin. There was no thickening on the alveolar process. All the molar teeth of the right lower jaw were gone. The other teeth were sound, and the internal organs normal. The woman had a strong beard, and shaved or pulled out the hairs with a pincette. An incision of the abscess was not allowed by the patient, but bandages with Burow's solution were ordered. Two days later the patient came again, and, as the abscess was larger in spite of the bandaging, she submitted to the incision. Under cocaine anæsthesia the abscess was cut open and cleaned out with a sharp spoon. It contained a mucous purulent fluid and some small lemon-colored lumps which awakened strong suspicion of actinomycosis. The cavity of the abscess was irrigated with 5 per cent. carbolic water and sublimate solution (1 to 1000), and bandaged with iodoform. The microscopic examination of the lumps two hours after excision showed numerous isolated conidia and actinomycetes. The little wound healed in a week, leaving but a slight cicatrix. The patient lives in a healthy part of the town and has nothing to do with animals, but stables and hay-

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lofts are near her dwelling. After examining the house Baracz formed the following hypotheses with regard to the manner of infection:

1. Flies seem to have been the bearers of the fungus from the stables. As the patient often pulled the hairs out of her face, the flies may have deposited the spores in the holes thus made.

2. The fungus may have found entrance during breathing, for opposite the patient's house were hay-lofts that were frequently opened for ventilation.

3. Lastly, the fungi may have got into the rain-water the patient washed in, stored as it was in a cistern in the yard.

No fungus could be observed on the walls of the house. This case belongs to the slight acute class. The patient was cured in three months.—*London Medical*

THE ANTISEPTIC PROPERTIES OF ESSENCES.—In the craze after chemical antiseptics the value of various essential oils and essences has been somewhat overlooked, and we are indebted to some French observers for a series of observations which show clearly enough that it is by no means necessary to have recourse to dangerous agents in our war of extermination against pathogenic organisms. It has been shown, for instance, that the essential oil of the *canuella alba* is as powerful a germicide as a one per cent. solution of corrosive sublimate, the bacillus of typhoid fever being killed by the former in ten, and by the latter in twelve minutes. A comparison of eucalyptus, pine, and other essences with the antiseptics generally in use, such as boracic acid, carbolic acid, iodoform, etc., is all in favor of the former. Iodoformic ether, so much lauded by Bouchard and others, only comes seventh on the list. An examination of the methods adopted by the ancient Egyptians for the conservation of their dead shows that they were perfectly cognizant of the anti-putrefactive properties of the various aromatic substances, balsams, and pure essences, and employed them with signal success. Moreover, from Hippocrates down to Ambroise Paré, the favorite dressing used by surgeons consisted of various oils, oleo-resins, aromatic wines, and similar antiseptic substances, of which one, at least, has survived to this day in Friar's Balsam, the compound tincture of benzoin. The famous theriacum of Andromachus, the formula for which has been handed down through centuries from the days of Nero to the present time, in addition to sulphate of iron, powdered opium, and various tannin astringents, contained forty different aromatics. Popular medicine, indeed, has always shown a preference for aromatic plants. It is evident, therefore, that if our forefathers had not grasped the theory of the antiseptic treatment, they at any rate recognized its value in practice. Hygiene and perfumery walk hand in hand, and many of the delicate odors which haunt the steps of our fashionable beauties possess marked disinfecting properties. We find accordingly that in proportion as cleanliness has become a national virtue, the taste for odoriferous products has become modified, and their lavish use is no longer considered to be a proof of good taste.—*Medical Press and Circular.*

TRAUMATIC TETANUS CURED BY LARGE DOSES OF HYDROCHLORATE OF PILOCARPINE IN HYPODERMIC INJECTION.—Casati (*Gazz. degli Ospitali*) in the first case commenced treatment by giving chloral and bromide of potassium, and chloral by intravenous injection. As the symptoms became aggravated all the contracted muscles were rubbed with belladonna ointment, three centigrammes of watery extract of opium every two hours, and a hypodermic injection of one centigramme of hydrochlorate of pilocarpine also every two hours. This treatment was continued for six days, all symptoms of tetanic contractions disappearing; the patient then became furiously delirious, and there was great diuresis. The delirium was attributed to the belladonna, and disappeared with paraldehyde. In the second case pilocarpine only was given, one centigramme in hypodermic injection every two hours. This was continued for eight days. The symptoms gradually disappeared, and the patient recovered. In the third case seventy centigrammes of pilocarpine were given in fifteen days. This case was a very severe one, but did well. Casati maintains that in all cases there is some solution of continuity to give access to the infective element of tetanus, and that this infective agent is identical in all forms of the disease.—*London Med. Recorder.*

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

TERMS, $3.50 PER ANNUM IN ADVANCE.

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DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, August 10, 1889.

The Week.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 54 observers (embracing 40 counties) show the following diseases to prevail for the week ending Friday noon, August 2, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Diarrhœa	40	155
Cholera Morbus	29	78
Cholera Infantum	28	47
Dysentery	26	56
Bronchitis, acute	20	32
Tonsillitis	16	20
Intermittent Fever	14	40
Typho-Mal. Fever	12	27
Whooping Cough	13	36
Rheumatism (acute)	12	16
Remittent Fever	10	33
Typhoid Fever	9	11
Consumption (Pul.)	6	10
Diphtheria	6	10
Pleurisy	6	7
Erysipelas	5	5
Scarlet Fever	3	8
Pneumonia	3	3
Measles	2	3
Puerperal Fever	2	2
Cerebro-Spin. Men.	2	2
Croup, membranous	0	0

REMARKS.

Diphtheria reported by observers at Miltonsburg, Martin's Ferry, Maineville, Moscow, Sharonville, and Grape Grove. Reported by health officers: Cincinnati, 6 deaths; Toledo, 1 case, 1 death; Xenia, 5 cases; Zanesville, 2 cases; Columbus, 2 cases.

Scarlet Fever reported by observers at Berkshire, Dupont, and Jackson. Reported by health officers: Toledo, 3 cases; Logan, 1 case; Columbus, 1 case; Cuyahoga Falls, 2 cases; Zanesville, 1 case; Coalton, 1 case.

Typhoid Fever reported by observers at Miltonsburg, Goshen, Eaton, Potsdam, Dialton, Glouster, Sharonville, and Carroll. Reported by health officers: Cincinnati, 4 deaths; Toledo, 1 death; Flushing, 4 cases; Bluffton, 1 case; Xenia, 1 case.

C. O. PROBST, M.D., Secretary.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending August 3, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	...	..	...	..	...	..	...
2nd	...	..	...	..	...	..	...	..	...	1	...
3rd	...	..	...	..	...	..	...	..	...	..	...
4th	...	1	...	..	3	..	...	1	...	..	...
5th	2	..	...	..	...	..	...	..	...	..	...
6th	...	..	...	..	...	..	...	..	...	..	...
7th	1	..	...	..	...	..	...	..	...	..	...
8th	...	..	...	..	...	..	...	..	...	..	...
9th	...	..	...	..	...	..	...	..	...	..	...
10th	...	..	...	..	...	..	...	..	...	..	...
11th	...	..	...	..	...	..	...	..	...	..	...
12th	2	..	1	..	...	..	2	2	...	..	1
13th	1	..	...	..	...	..	...	..	...	..	...
14th	...	..	...	..	...	..	...	..	...	..	...
15th	...	..	...	..	...	..	2	..	...	1	...
16th	...	..	...	..	...	..	...	..	...	..	...
17th	...	..	...	..	...	..	...	..	...	..	...
18th	...	..	...	..	...	..	...	..	...	..	...
19th	...	..	...	..	...	..	...	..	...	..	...
20th	...	1	1	..	...	..	...	..	...	..	...
21st	1	..	1	..	...	..	1	1	...	..	...
22nd	...	..	..	..	...	..	...	1	...	..	...
23rd	...	..	.	..	...	..	...	..	...	..	...
24th	...	..	...	..	...	..	2	..	...	..	...
25th	...	1	...	..	...	..	...	1	...	..	...
26th	...	..	...	..	...	..	...	..	...	..	...
27th	...	..	...	..	...	..	1	..	...	..	...
28th	...	1	...	..	...	..	...	..	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	2	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	..	...
Home of Fr'ndl'ss	...	..	...	..	...	..	...	..	...	2	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	7	4	3	..	3	..	10	6	...	4	1
Last week	21	5	4	1	3	..	17	3	...	6	1

The following is the mortality report for the week ending August 3, 1889.

Croup	1
Cholera Infantum	4
Diarrhœa	2
Diphtheria	6
Measles	4
Typhoid Fever	4
Other Zymotic Diseases	2—23

Cancer	2
Phthisis Pulmonalis	12
Other Constitutional Diseases	10—24
Apoplexy	2
Bronchitis	2
Convulsions	1
Heart Disease	2
Liver Disease	3
Peritonitis	2
Pneumonia	4
Other Local Diseases	16—32
Old Age	1
Premature Birth	1
Other Developmental Diseases	10—12
Accidental	5
Homicidal	1
Unknown	1— 7
Deaths from all Causes	98
Annual death rate per 1000	15.68
Deaths for corresponding week in 1888	152
Deaths for corresponding week in 1887	191

BYRON STANTON, M.D.,
Health Officer.

THE SPREAD OF TUBERCULOSIS.—Dr. Cornet, from Prof. Koch's Hygienic Institute, by numerous experiments showed that the disease was spread, if not exclusively, at least to the far greatest extent by means of dessicated tubercular expectoration in the form of dust, which was inhaled. He proposed that individuals suspected of tuberculosis should be required not to expectorate into a handkerchief or onto the ground or floor, but into a cup. Disinfection of the sputum he showed to be superfluous. All that was required was that the vessel should undergo a daily cleansing with hot water, the expectoration along with the water used in washing being emptied into the water-closet. Anything that helped to dry the sputum, such as sawdust in spittoons, was objectionable. Acting on these suggestions, the Berlin Polizei-Presidium has issued directions to the keepers of private lunatic asylums that tuberculous inmates shall be isolated from others as much as possible, and that great care must be taken that they shall expectorate only in vessels containing a little water. The vessels are to be cleansed at least once daily with hot water, and the contents emptied into the closet. The bedding, linen, and other clothing of phthisical patients are to be cleansed with boiling water, or sent to the public disinfecting establishment. The rooms also occupied by phthisical patients are to be thoroughly disinfected. It would be well if these regulations were followed out in the case of all phthisical patients, and it would also be well if the disgusting, now proved to be dangerous, habit of spitting in the public streets, buildings, and vehicles were also put down by the authorities.—*Med. Press and Circular.*

A VEHICLE FOR IODIDE OF POTASSIUM.—Milk as a vehicle for iodide of potassium completely masks the taste, and does not apparently interfere with the therapeutic qualities. Patients who could not tolerate ten grains when administered in water could soon take forty grains in milk with no symptoms of nausea.

INJECTIONS OF LEMON-JUICE IN SEVERE EPISTAXIS.—The *Centralb. für klin. Med.* of June 15th, says that Dr. Fauchon, of Orléans, France, obtained immediate relief in a severe case of epistaxis by the injection of the juice of a freshly squeezed lemon. So far he has only had the one occasion to use the remedy.—*Med. News.*

A TESTIMONIAL.

MESSRS. REED & CARNRICK.

Gentlemen: I have been much interested in the study of the milk question as it affects infants who are deprived of their mother's breast, and have discussed it editorially and otherwise. This summer I have had the question forced upon me practically, as the result of the illness of my wife, necessitating the weaning of our baby and supplying her with some artificial substitute. I have thus given a practical test of Carnrick's Soluble Food and have been perfectly satisfied with the result, as our little one has thriven on that food, I think as perfectly as if the mother had been able to nurse her. Though this has been her "second summer," she has not had any disturbance of digestion or tendency to diarrhœa at all.

St. Louis, Mo. Dr. E. M. NELSON.

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations.

LEONARD FREEMAN, M.D.,
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Curators and Microscopists.

PEPTONES AND NUTRITION.

[*British Medical Journal.*]

A great deal of attention has of late years been paid to the chemical changes occurring in the stomach and intestine, both in health and in disease. It cannot be said that our knowledge on these points is at all complete. In artificial digestion it is well known that the action of pepsin in the presence of free hydrochloric acid consists in the transformation of soluble albuminoids into peptones, a series of intermediate products, such as acid albumen and albumoses, being at the same time produced. The end-product of gastric digestion, namely, the peptone, has been almost universally considered as the form in which the proteids are absorbed, and with this idea peptones are administered to patients whose digestion is deficient. The idea, however, that proteids are absorbed as peptones to any great extent has been strongly combatted by Brücke even as late as 1885; and if Brücke's idea is correct, there really does not seem much rationale for administering peptones to invalids. There is, however, much more evidence for than against the idea of the nutritive value of peptones. Thus, Plosz showed that in dogs peptones could be substituted for other proteids in the food, and with beneficial results. In an experiment lasting eighteen days, a dog received altogether 560 grammes of peptone (made with pepsin), 422 grammes of sugar, and 309 grammes of fat; all the functions of the body remained normal, and the animal gained 3.75 per cent. in weight. Voit, however, has shown that although peptones can maintain the nitrogen-equilibrium, they have not the nutritive value of the ordinary proteids taken in as food; after seven months, rats fed with peptones instead of ordinary proteids, die. The question is evidently a very important one to determine. If the peptones formed in the stomach are not nutritive to the animal, they must be considered as decomposition products of the proteids taken in as food; if however they are nutritive, they would be considered as hydrated products, the proteids taken in as food undergoing this change in order, by increasing the solubility of the substance, to increase its absorbability. Indeed, Hofmeister and Henninger, by dehydrating peptones, have been able to obtain a proteid resembling the proteids taken in as food, being coagulated by heat.

There is, therefore, more accurate evidence in favor of peptones having a great nutritive value than against; that they are, in fact, the modifications in which proteid food is absorbed in the stomach and intestine. This being so, what becomes of the peptone? None, or perhaps only a trace, is found in the lymphatics of the mesentery, only a trace is found in the portal blood, and in the blood of the general system it is extremely doubtful whether any is present. Hofmeister asserts that a trace is found in arterial blood, while none is present in venous blood. At any rate, there is a concurrence of opinion that peptones are not present in the blood and lymphatic vessels of the body in sufficient quanity to account for the proteid taken in as food, supposing the peptones are absorbed as such. An interesting experiment of Hofmeister's points to the fact that in traversing the wall of the living intestine, peptones undergo an important change. In the first place, during digestion, peptones are found in quantity in the mucous membrane itself, but are not found deeper down in the intestinal wall. Secondly, an animal was killed in full digestion, and two pieces of intestine removed; one piece was heated to destroy the living tissues, while the other piece was kept for a short time at the temperature of the body. The first piece of intestine contained peptone in abundance in its walls, while the second piece contained none. This piece of intestine still lived, and was able to transform the peptone it contained, while the first piece, being killed, was unable to do this.

Here, then, is a case of "vital" absorption; the peptones do not simply diffuse through the wall of the intestine, but are taken up by the mucous membrane and transformed by it. Transformed, but into what? This is the next question to decide. Presumably it is transformed into serum albumen, as this is the chief proteid found in the liquid part of the blood. To the elucidation of this question experiments have been undertaken in Professor Kronecker's laboratory in Berne by two ladies, Fräulein Nadine Popoff and Fräulein Julia Brinck. The results are published in the *Zeitschrift für Biologie*. The fact which was the basis of these experiments was first discovered by von Ott, namely, that peptone, when placed in the stomach of a living dog, was transformed into serum albumen before it entered the walls of the digestive tract. There are abviously many difficulties at arriving at a correct conclusion on this point. Large quantities of peptone which would facilitate chemical analysis cannot be used, as the conditions would not be natural. At no time during natural digestion is there a large quantity of peptone in the stomach. With small quantities of peptone it is difficult by chemical analysis to be certain of the form of proteid present. Then, even if part of the peptone were changed into serum albumen, it would be difficult of detection by chemical means, although not impossible. Fräulein Popoff and Brinck have not applied this chemical test, but have employed a physiological one. The frog's heart, as is well known, may be separated from the animal and be kept pulsating for many hours if a proper nutrient liquid be supplied to it. One of the best nutrient fluids is 0.6 per cent. salt solution, to which a certain proportion of serum is added; this liquid will keep the heart beating for many hours. If, however, only salt solution be used, the heart comes to a standstill after a short time; and if peptones be added to the salt solution, the heart may be stimulated to beat for a short period, but soon becomes quiescent.

Now the chief fact brought out by Fräulein Popoff's experiments is that if a solution of peptone be placed in the stomach of a living dog and removed after fifteen minutes, it is found capable of sustaining the activity of the frog's heart, while previous to being placed in the stomach it was incapable of doing this. This change in the peptone solution is more marked if it be placed in the small intestine instead of the stomach. A curious fact brought out by the research is that while the peptone formed by pepsin can be changed in the manner described by the stomach and intestine, that formed by the pancreas is unaltered; in other words, pancreas peptone, both before and after the exposure to the action of the intestinal wall, does not act as a nutrient fluid for the heart.

Fräulein Brinck has repeated and confirmed Fräulein Popoff's experiments, and has extended them. She has shown, for example, that the effect on the peptone is not simply due to temperature, for a solution kept in the incubator at the temperature of the stomach does not sustain the cardiac beat. Moreover, the stomach and intestine seem to retain their regenerating power for a short time after the circulation of the blood has been stopped: a fact previously discovered by Hofmeister. The regenerating effect is, therefore, ascribed to the epithelial cells lining the stomach and intestine, and so it was naturally suggested that other epithelial cells might have the same power. It was found, indeed, that the frog's heart could change the peptone solution, rendering it nutritive to itself. Thus, if the solution be passed four to ten times through the heart, it then becomes capable of sustaining the cardiac activity. Another interesting aspect of the subject was shown by the fact that a pepsin-peptone solution, which had just begun to decompose, was a powerful sustainer of the heart's action; while if the decomposition be allowed to progress, the liquid becomes a cardiac poison, instead of a cardiac food. Fräulein Brinck suggests that the first effect is due to the special organism she describes, *micrococcus restituens*, forming serum albumen from the peptone; while in the later stages of the action of another organism growing in the liquid, a poison is developed. The first effect would, therefore, be another instance of the formation by a cell of serum albumen out of albumose and peptone. Here the matter at present rests. Although the researches discussed are extremely interesting, until the body formed from peptone in the stomach and intestine is separated and chemically tested, it seems premature to call it "serum albumen." Moreover, if peptones are the end-products of proteolytic digestion, being formed to aid the absorption of proteid food, it is difficult to see the rationale of their transformation into serum albumen within the cavity of the stomach and intestine; one would rather expect the change to occur in the walls. No doubt further researches will elucidate these points.

BINIODIDE OF MERCURY IN HAY FEVER.—Dr. C. R. Illingworth prescribed a warm lotion of 1 to 2,000 biniodide of mercury as a douche at bed-time in a bad case of hay fever affecting the chest and nose. The nasal affection disappeared with one application; and the chest trouble was cured by one strong inhalation of the same lotion.—*N. Y. Med. Times.*

PHYSICAL AND MENTAL CHANGES AFTER THE REMOVAL OF THE OVARIES OR UTERUS.

[*Med. Press and Circular.*]

Dr. Glævecke, of Kiel, lately published a paper in the *Archiv. f. Gynækol.* on this subject. According to this author, the changes usually met with were those observed at the menopause. Menstruation permanently ceased immediately or shortly after the operation of removal in eighty-eight per cent. of the cases. In the remainder it was less frequent and more scanty. Practically no vicarious menstruation was observed. Menstrual molimina were observed in thirty per cent. In the time between the periods the familiar characteristic disturbances were observed, hot flushes, perspiration, and faintness. He looks upon them as disturbances of the vaso-motor system, in consequence of the cessation of the ovarian function, an observation, by-the-by, that does not throw much light on the subject. He does not remark the very long continuance of this most uncomfortable condition in many of the cases—four and five years. In four cases out of a total of forty-three, palpitation and headache came on; in one nausea, coming on several times a day; in another vomiting; in one diarrhœa; in one acne of the face lasting over a year, and in two increasing weakness of intellect. Atrophy of the internal genitals was a consequence of the operation. In twenty-three cases in which the operation was performed for myoma uteri distinct shrinking took place in the tumors in ninety per cent. In forty-two per cent. of the cases a distinct increase in weight, due to deposit of fat, was observed. Sexual desire was unchanged after removal of ovaries in only a few women. Both desire and pleasure were much diminished, but not in the same proportions in all cases. As regarded the psychical condition, almost always a depressed, low-spirited condition was remarked. Many women became melancholic, others showed a changeable and petulant disposition. Actual psychoses developed in three cases, two recovered in the course of a year, the third was incurable.

The changes were different when the uterus was extirpated. Menstruation ceased and no vicarious menstruation followed. Out of thirteen cases of total extirpation of the uterus, strong molimina were observed in nine. If the ovaries were not removed atrophy of the external genitals did not take place. But little increase of weight took place after extirpation of the uterus. Sexual matters were almost unchanged; a slight diminution of sexual pleasure was acknowledged in a few cases. Psychically no change was observed in one-half of the cases; in more than a third a melancholy so great as to constitute a psychosis was observed. On the whole, the bodily and mental changes after castration were much greater than after extirpation of the uterus.

ANATOMY OF THE PROSTATE.—Griffiths, (*Journal of Anatomy and Physics*) concludes:

1. That the third or median lobe exists, in many instances, as a well-defined portion of the gland at the time of puberty and during adult life, *i.e.* the period before enlargement of the prostate occurs, but in other instances it is very small or entirely absent.

2. This part or lobe possesses ducts of its own, which open upon the parts of the hinder wall of the prostatic urethra, which extends from the vesical orifice to the verumontanum.

3. This part or lobe also develops separately from the part of the urethra just mentioned, in the same way as the lateral lobes do from the part of the urethra on each side of the verumontanum, and it is not the result of an extension backwards of gland-tissue from the lateral lobes into the interval between the vasa deferentia beneath the neck of the bladder.

4. The whole gland is peculiar in this particular that the 'ducts' are short, and form mere channels in the stroma, being destitute of any special coats except a layer of epithelium lining them, and that the muscle-tissue of the prostate is so arranged around the terminations of the 'gland tubules' which form the secreting parts that the muscle, when it contracts, is able to act as an efficient expulsor along the whole course of the tubules.

5. This arrangement of the muscle in the prostate is developed in relation to the function of the gland (which is necessary to the true generative glands), and thus it is that the secretion accumulated in the

tubules can be completely expelled into the urethra at once, or at least in a short time.

6. The muscle-element of the prostate is derived from the outer, circular, non-striped muscle-coat of the prostatic urethra, this coat being continuous with the circular coat of the bladder; there the muscle-element of the prostate is only indirectly continuous with that of the circular coat of the bladder.

7. The *utriculus masculinus* is not, strictly speaking, embedded in the prostate. It forms a distinct structure separate from the prostate; and, as the growth of the prostate greatly exceeds that of the *utriculus masculinus*, the latter is in time covered in, and appears as if embedded in the former.

NITRO GLYCERINE.—If the statements of Dr. Burroughs (*Lancet*, June 22, 1889) are supported by further experience, a very valuable drug will be added to the list of those now relied upon by the profession. He presents its claims as a substitute for alcohol in cases of emergency. The preparation used is a one per cent. solution, the dose being one drop. It may be given in water, when it is almost tasteless, or, in emergency, a drop may be placed upon the tongue. It causes, in small doses, increase in the fullness of the pulse and a slight increase in the number of its beats. In larger doses, flushing of the face, severe headache, singing in the ears, flashes before the eyes, and other symptoms of increased blood supply in the brain. Its effects are experienced a few minutes after the dose, and continue from twenty minutes to four hours. Its influence is counteracted by strychnia, ergot, and belladonna given subcutaneously. The headache may be controlled by compression of the throbbing carotids.

Dr. Burroughs has used nitro-glycerine with benefit in a number of different conditions.

A patient with neuralgia of the heart (angina pectoris) was frequently relieved of pain and dyspnœa by it.

A young man who fainted during the dressing of his wounds was quickly restored by a drop upon the tongue.

Anæmic headache was quickly relieved by it.

One drop instantly cured pure spasmodic asthma in a workman, enabling him to resume his work at once.

A patient with typhoid fever became delirious and extremely prostrated on the twenty-fourth day. His temperature fell, his pulse became slow and remittent. He refused to take brandy. One-fourth of a drop of nitro-glycerine (one per cent. solution) was given every fifteen minutes for two hours. The pulse became full and regular, the delirium subsided, and in twenty-four hours the mind was clear.

In a case of acute alcoholism, the patient was made worse by a single drop of nitro-glycerine solution.

In cases of opium narcosis and of uræmic coma, with feeble pulse, great benefit followed its use.

In cases of apparent sudden death and of drowning, nitro-glycerine dropped on the tongue might start the heart again to beating and restore the patient to life.—*Maryland Med. Jour.*

CHLORATE OF POTASH IN OZENA.—Dr. J. A. Bætta Neves has recently reported a case in which he succeeded in curing ozena by means of chlorate of potash. The patient, a lad of strumous constitution and suspicious family history, had suffered for some months from chronic naso-pharyngeal catarrh. There was an abundant muco-purulent secretion, often streaked with blood, and very offensive; the nasal mucous membrane was ulcerated in some places and in others covered with dark green crusts. Various local astringents, including borax and alum separately and in combination, were tried without effect. The nasal passages were washed out with douches of a 1 in 100 solution of permanganate of potash in water, 100 grammes being used for each douche, and the application being made twice daily, always preceded by a douche of plain water. In three days the discharge had lost its offensive smell. A solution of chlorate of potash (1 in 30) was then substituted for the permanganate in the douches, and in two months the patient was completely and permanently cured.—*British Med. Jour.*

INJECTION TO DESTROY OXYURIS VERMICULARIS.—The oxyuris vermicularis is said to promptly disappear with injections per rectum of cod-liver oil, pure or made into an emulsion with the yolk of an egg. It is non-irritating, and is said never to have failed to effect a cure.—*New York Med. Abstract.*

THE TREATMENT OF THE ACUTE STAGE OF ECZEMA.

By D. MACKINTOSH, M.D., C.M., London.

[*The Practitioner.*]

The literature of eczema is pretty extensive, and it can hardly be considered by the most astute observer, or the most exacting critic, that its treatment has not received an adequate share of attention. It must indeed be conceded that more than ordinary attention has been bestowed upon the subject. Numerous remedies and modes of treatment have from time to time been suggested for the benefit of sufferers from this troublesome complaint, and although I have nothing very new or original to communicate, I have suggestions to make and remedies to propose which, in combination, will speedily arrest the inflammatory stage of the disease, and put an end to perhaps months or years of future suffering. Had the remedies proposed been less numerous, confusion in their selection and application would have been diminished in like proportion. A good deal has to be laid to the charge of those whose mission it is to add to our accumulating stock of remedies. What the busy practitioner of medicine requires is not a multiplication of remedies, many of which are of equal value, but a judicious selection ready to hand on which he may place reliance, and with which he may cure his patients in the shortest possible time. What applies to remedies equally applies to books. A long farrago of remedies is more often than not laid down in the chapter on treatment for the practitioner to select from. Instead of the best only being pointed out for him, he is left to grope about in the dark, and select as best he can. I have at my elbow an otherwise excellent volume on skin diseases, where no less than forty-nine drugs are mentioned *seriatim* for external use in eczema, without note or comment as to their relative value. This is not at all the sort of book a medical man requires; it is of no practical utility to him. He scans its pages in vain in preparation for the morrow's rounds, or for the benefit of patients expected in the consulting-room in a few minutes' time. He is obliged to lay it aside in despair of gleaning anything of practical advantage from its pages. We want to make ourselves and our books as practical as possible. The most suitable prescription to our patient at the first interview is urgently demanded. That forty-nine remedies may be indicated in a particular disease we may with a stretch of imagination concede; but that a particular patient will present himself at our consulting-room forty-nine times to be experimented on with a fresh prescription every time is rather doubtful.

In the treatment of the acute stage of eczema two essentials must be reckoned with before we proceed to tackle the disease itself. The first of these is, that the patient must be instructed not to wash the eczematous parts, and this advice he must religiously observe. He will probably reply, "But I must wash sometimes." "Wash not at all," is the first commandment in eczema. He must neither wash with, nor yet without, soap, nor with the usual adjuncts of bran steeped in hot water, oatmeal, milk and water, buttermilk, whey, sour milk, or rain water, or any other of the usual washes; all of these are mistakes that seriously hamper and delay curative treatment. That persistent washing predisposes to eczema by drying the skin, and depriving it of the unctuous secretions which impart to it suppleness and softness, qualities on which the natural beauty of the complexion so largely depends, there cannot be a doubt. For the same reason and in the same manner, although it is not generally known, frequent washing with soap and water is disastrous to the growth of hair, it changes its natural color to a lighter hue, the natural gloss is lost, the hair becomes dry, prematurely grey, and early baldness is favored. This process of destruction is materially hastened by washing the head with warm or hot water and soap during cold weather. The head and beard should be dressed and kept clean by combing and brushing, a process all-sufficient for purposes of cleanliness, and the rational method for preserviag a fine head of hair.

In eczema of the head and face the more essential parts to wash, such as the corners of the eyes and angles of the mouth, may be touched lightly with a small piece of soft sponge made damp with cold water, and immediately dabbed dry. Warm and hot water should be discarded in the neighborhood of the eczematous skin. A patient suffering from eczema of the head and face only may of course sponge and wash his body with warm water as frequently as necessary. Coffee, strong tea, and alcoholic drinks should be forbidden.

The second essential is that the bowels be kept well open. In the case of children, grey powder, rhubarb, and bicarbonate of sodium, a grain of each, taken as required every second or third night, will answer every purpose; or grey powder and magnesia will do equally well. In adults saline medicines hold the first rank. The following is a useful combination:

℞.—Magnesii Sulphatis, ʒvj;
Sodii Bicarbonatis, ʒj;
Infusum Gentianæ Co., ad ℥vj.
Sig.—Take a sixth part three times a day before meals.

I do not hesitate to say that the sulphate of magnesium is far and away the best of all purgative medicines in most other diseases as well as in eczema—the best because the mildest, the least irritating, one of the least injurious, and certainly one of the most effectual; but it must be taken at the proper time and in the proper quantity. The proper time is an hour before meals—preferably in the morning before breakfast, although it may be taken before any other meal with nearly equal benefit. The proper quantity is three drachms, dissolved in three parts of a tumblerful of cold water or soda water. Hot water does not materially help its action, and it makes the drug more nauseous. Three drachms of sulphate of magnesium dissolved in an ounce of chloroform water, followed by a cup of tea or beef-tea, can be swallowed almost without taste or inconvenience. A four- or five-grain blue pill taken at night, and the same draught next morning, has its advantages; or, what is perhaps better still where free purgation is desired, the following pill at bed-time, and the draught in the morning.

℞.—Extracti Colocynthidis Co., gr. iij;
Pilulæ Hydrargyri, gr. j;
Extracti Hyoscyami, gr. j.
Ft. pil.

Where there is torpidity of the liver, a combination of cascara with nux vomica is equal, if not superior, to any other:

℞.—Ext. Cascaræ Sagradæ Liq., ʒiijss;
Tincturæ Nucis Vomicæ, ʒj;
Glycerini, ʒiij;
Infusum Gentianæ Co., ad ℥viij.
Sig.—Take one ounce every evening directly before dinner, or morning and evening if required.

Medicines such as arsenic and iodide of potassium given internally I have found disappointing, and of very little use. Of course gouty eczema must be suitably treated.

The great desideratum is the appropriate external treatment. I have been in the habit of prescribing an ointment which in most cases pretty nearly approaches the character of a specific:

℞.—Bismuthi Subnitratis, ʒiv;
Zinci Oxidi, ʒj;
Acidi Carbolici Liquidi, ʒss;
Vaselini Albi, ℥ij.
Ft. ung.

Sometimes I vary the prescription into this form:

℞.—Bismuthi Subnitratis, ʒij;
Zinci Oxidi, ʒss;
Glycerine (Price's), ʒjss;
Acidi Carbolici Liquidi, ♏xx;
Vaselini Albi, ʒvj.
Ft. ung.

The latter ointment mixes into a beautiful enamel-like cream, which is cooling, and acts as a balm to the irritable skin.

When constant tingling and irritation disturb the patient's rest at night, I have found this lotion invaluable:

℞.—Bismuthi Subnitratis, ʒj;
Glycerine (Price's), ʒiv;
Acidi Carbolici Liquidi, ♏xij;
Aquam Rosæ, ad ℥i.
Sig.—Shake up and apply with a camel's hair pencil.

During the day, when business has to be attended to, and the ointment cannot be applied, a powder will be found useful:

℞.—Cimolite,
Bismuthi Subnitratis,
Zinci Oxidi, aa partes æquales.
Fiat pulvis.

In more chronic cases the famous *Unguentum Metallorum* still holds its own. It consists of

Unguenti Zinci,
" Plumbi Acetatis,
" Hydrargyri Nitratis, aa partes æquales.
Misce.

This ointment I occasionally vary by substituting white precipitate for the nitrate of mercury ointment.

VERY HOT COMPRESSES IN SURGICAL PRACTICE.—Professor I. I. Nasiloff (*Lancet*) gives an account of several cases of inflammation of the lymphatic glands which he treated with marked success by means of very hot compresses. These compresses consisted of a four-fold piece of linen, larger than the surface over the affected parts. It was dipped into water at a temperature nearly or quite equal to 212° F., wrung out, and applied quickly over the glands, its own temperature being then from 140° to 165° F. These applications were made morning and evening, the compress being allowed to remain on, covered over with cotton-wool, for about fifteen minutes. The applications produce somewhat severe pain, but this did not last long, though sometimes not only redness but a blister was caused. The treatment was continued for about a fortnight. It was found that it very soon began to promote absorption; this action was always accompanied by a rise of temperature, depending apparently upon the size of the glands, and upon the extent to which absorption was taking place. It was noticed that the earlier the treatment was adopted the more effective it showed itself. Professor Nasiloff believes that hot compresses are a valuable form of treatment, not only in strumous glands, but in rheumatic osteomyelitis and in fungoid inflammation of the joints.—*N. Y. Med., Times.*

CALCIUM CHLORIDE IN GLANDULAR AFFECTIONS OF THE NECK. — Calcium chloride is an agent which was held in the highest esteem by the earlier practitioners of medicine, but is hardly recognized by therapeutic authors of the present day. Dr. S. Coghill, of the Royal National Hospital for Consumptives at Ventnor, in a communication to the *Practitioner*, states that he has "again and again seen chronically indurated and enlarged glands, which absolutely amounted to deformity, and which had resisted all previous treatment, yield, even in adults, to the administration of this salt. In children and young persons, when the sleep becomes restless, the breath fetid, the tongue foul and coated, the tonsils enlarged, I know of no remedy approaching it in value. The colliquative diarrhœa, which so often accompanied this condition, and above all, that obstinate dysentery which is seen with hypertrophy of the mesenteric glands, yield to the solution of the chloride of calcium like a charm."

Dr. J. Mays writes in the *Archives of Pediatrics*: "I have used this agent for a number of years, both in private and public practice, and can fully endorse the strong views expressed by Dr. Coghill, especially so far as scrofulous affections of the neck are concerned. . . . Here the chloride of calcium acts admirably. It reduces the enlargement, promotes nutrition, and is generally more efficacious than anything I have ever prescribed. Its resolvent power is equally marked in the glandular swellings of adults, although here it requires a longer time, and its action is facilitated by the simultaneous application of iodine."

This agent must not be mistaken for the chloride of lime—the ordinary disinfecting powder—the composition of which is entirely different. By prescribing the granular calcium chloride this possible error will be avoided. The dose is from two to four grains for children, and from ten to twenty grains for adults. It can be given in milk or water, but the best vehicle for it is the syrup of sarsaparilla.—*N. Y. Med. Times.*

TREATMENT OF TUBERCULOSIS IN CHILDREN.—According to Dr. Jacobi, arsenic is a remedy of much usefulness in the treatment of tuberculosis in children, but it is necessary only to admister the drug in small doses. A young patient, for example, could take every day, and that for weeks or months, two drops of Fowler's solution. This dose should be diluted in a sufficient quantity of water, and given three times a day after meals. If any signs of saturation supervene, the dose should be withheld for a time. A second remedy of almost equal value in these cases is digitalis. Under the influence of this drug the contractility of the heart muscle is strengthened, and, consecutively, the arterial pressure is increased and the rapidity of the pulse diminished. The general effect of the increased arterial pressure is to favor the nutrition of the tissues. The choice of the particular preparation of the drug is a point of some moment. Oftentimes the infusion and the tincture are badly borne by the stomach; digitaline, on the other hand, is an inconstant preparation; thus the fluid extract is most to be recommended, either in pills or in capsules, and this can be dispensed with other drugs, such as narcotics or iron.—*Med. Press and Circular.*

Restoration of the Bladder after Excision.—At the Surgical Congress recently held at Bologna, Professor G. Tizzoni, of the University of that city, and A. Poggi gave an account of some experiments they had made on dogs, with the view of ascertaining whether the bladder could be removed and an efficient substitute constructed by operation. First of all laparotomy was performed, and a loop of small intestine about 7 centimètres in length, with its mesentery attached, was isolated by two transverse cuts, washed out with a carbolized solution, and tied at both ends, one extremity being fixed in front of the neck of the bladder. The two ends of the divided gut were then stitched accurately together by circular suture. The dog soon recovered from the operation, and a month later the second stage of the experiment was performed. The ureters were separated from the bladder, and the latter was completely removed. The loop of intestine destined to be the new bladder was then cut across at the lower end and stitched to the neck of the bladder. The ureters were then turned into the artificial bladder. A slender elastic drainage-tube was placed in the urethra to carry off the urine during the first few days. The animal recovered perfectly, and gradually acquired control over its new bladder, and when shown to the Congress, two months later, showed no sign of incontinence. The operation has been repeated with success on several other animals, and Drs. Tizzoni and Poggi are hopeful that it may be applicable to the human subject.—*London Med. Recorder.*

Test for Bile in Urine. — Chloroform, as a test for bile in the urine, is ready, delicate and certain. All that is necessary is to agitate a few drops of it in a test-tube, along with the supected urine. If bile be present, the chloroform becomes turbid and acquires a yellowish hue, the depth of which is in proportion to the amount of bile present in the urine. If no bile be present, the test-fluid remains limpid.—*N. Y. Med. Times.*

Miscellany.

MEDICAL HUMOR.

Collated from various sources by T. C. M.

Medicine Among the Heathen.—Mr. George Curzon, in his account this month of a "Visit to Bokhara the Noble," gives a highly interesting sketch of Dr. Heyfelder, who was chief of the medical staff in Skobeleff's Turcoman campaign. "It would be hard to exaggerate the part which his manners and generosity have played in the pacification of this whilom haunt of fanaticism. As early as 6 o'clock in the morning people crowd into the embassy to see him. Very often so childish is their faith that they do not ask for a prescription, but simply implore his touch. . . . A fat old Bey, he told me, came to him one day and said: 'Can you make me better? I suffer from eating four dinners a day.' 'Certainly,' said the Doctor, 'eat three.' Thereupon the old gentleman became very angry, and retorted: 'How can I eat less when I am called upon to entertain venerable foreigners?' I asked the Doctor whether it was out of benevolence that he continued to reside in Bokhara. 'Yes,' he replied, 'and as a pioneer of civilization.'"—*British Medical Journal.*

* * *

Salve Lardum.—The following poetical effusion in defense of the hog appears in *Daniel's Texas Medical Journal*, and is by a physician whose army recollections are yet distinct:

O! how our salivary glands (sublingual and parotid)
O'erflowed, as in our hands the "pone" with precious drops was dotted!
How fragrant was the smoky air, like incense heavenward rising,
And as we sniffed the od'rous breeze we felt our hopes reviving!
For in that ration adipose lay force and red corpuscles,
To fill our veins, and renew our weary, wasted muscles!

No fear of *tænia solium*, nor of *ecchinococcus*,
Trichina S., nor bacilli, nor deadly micrococcus,
Disturbed our gustatory joys, nor hungry visions haunted.
Bugs, germs and all we bolted down, by hidden foes undaunted,
Our scanty meal too soon consumed, lights out, our drummers rattle,

While distant, growling, hostile guns presage to-
morrow's battle;
And when at last our weary frames by sleep were
overtaken,
Our fitful dreams were, half and half, of *victory*
and *bacon!*

* * *

Mr. Rambo (at dime museum), in great alarm: "Nancy, do you see anything in that cage next to the monkeys?" Mrs. Rambo: "Yes, there's a lot of snakes." Mr. Rambo (with recovered self-possession): "So they are. Fine specimen's, too, aren't they?"

* * *

A Wise Medicine Man.—Dr. Ebbonnie: "Dat chile o' yours am lookin' poo'ly, Mrs. Yallerby. What's he done gone an' swallowed this time?"

Mrs. Yallerby: "A bit of lead-pencil, docto'."

Dr. Ebbonie: "H'm! What he wants now, ma'am, am an erasive remedy, I recommend him ter chew a piece ob Injy-rubber half an hour afore each meal."—*Puck.*

This is about on a par with the man whose presence of mind led him to take a dose of Paris green after accidental swallowing a potato bug. It also reminds us of the distinguished therapeutists whose experiments in the laboratory are made the basis of experiments on the sick.—*Hahnemannian Monthly.*

* * *

THE WHY.

Germs in the air,
Germs in the sea,
Germs wherever one may be,
Germs and to spare
Growing in me,
German germs from Germany.

Whate'er we say
Or write or think,
Germs will wriggle in the ink.
On tongues they'll play,
And "culture" drink
From each minute cerebral chink.
—*Boston Medical and Surgical Journal.*

* * *

To Young Physicians.—There is said to be a barber's sign near the Palais Royal, Paris, bearing the following legend in the vernacular: "Callileucocapillaire water which colors the hair white. For the use of young physicians and magistrates.—*Sanitarian.*

Of Interest to all Medical Practitioners.

Champagne
ANALYZED

WHAT IS SAID BY
THOMAS KING CHAMBERS, M.D., F.R.C.P.
R. OGDEN DOREMUS, M.D.
F. W. PAVY, M.D., F.R.S.

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THE

CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, August 17, 1889. *WHOLE VOLUME LXII.*

Original Articles.

TUBERCULOSIS IN SLEEPING-CARS.

Remarks made by invitation at the third annual session of the N. Y., P. and O. R. R. Surgeons' Association, held at Lakewood, N. Y., July 9, 1889,

By J. T. Whittaker, M.D.,
Professor of Practice of Medicine, Medical College of Ohio.

The fact that we are a nation of travelers is pretty well proven by the existence of this society. Some of us pass a great part, all of us some part, of our lives in travel, and in our day mostly by rail. From a medical standpoint, this subject has had hitherto only surgical interest. The fact is, however, that internal medicine is concerned as much, if not more, than surgery; for, as it has been shown that a single disease, dysentery, kills more men in war than the enemy's guns, so it may prove true that more diseases than accidents occur on railway trains.

It is now a well-established fact that the infections which constitute the chief part of internal diseases are pretty much all house diseases, and as railway cars constitute permanent or temporary homes, the construction and management of them, more especially of the sleeping cars, fall in the province of the sanitarian and physician.

The range of the infectious diseases, or the possibility of contracting them, is too wide for an hour's discussion, so that the present remarks will be limited to but one, the chief one, viz., tuberculosis, the mode of infection of which has only been definitely determined in the past few years.

The introduction of this subject needs no apology in any medical assembly. It is almost tiresome to hear that one expression of it, consumption alone destroys two-sevenths of mankind and one-third of the working population. Other localizations or masked expressions, as the marasmus of infants, enteritis, meningitis, hip disease, caries of the vertebræ, affections of the larynx, to say nothing of catarrh, bronchitis, pleurisy, pneumonia, etc., many of which are really tuberculous, increase the percentage of attack to five-tenths at least. The truth is, tuberculosis is so common that, as Shingleton Smith says, we have almost become apathetic and fatalistic about it. Koch's discovery, which enabled us to declare absolutely what is tuberculosis and what is not, lifted the cloud of indifference and showed up the subject in an entirely new aspect, and with the startling revelation that if the disease cannot be absolutely cured it can be absolutely prevented. It is from this standpoint that we shall study the subject to day.

The insuperable bar to progress in the study of this disease has been the question of heredity, and it is necessary to break this barrier before we may have any intelligent comprehension of the mode of infection and true prophylaxis of this disease. It would be superfluous in this assembly to waste much time in the refutation of this view. The accurate statistics of Williams and Pollack, which show that parents are affected in but twelve per cent. of the cases, are enough of themselves to attack it; and the fact that brothers and sisters are affected in twenty-four per cent. should certainly subordinate the role of heredity to that of association with affected cases. Children do unquestionably contract the disease from parents, but not by hereditary transmission.

If tuberculosis were transmitted by heredity the disease would have to be transmitted by the ovum, spermatozoid, placenta, or blood. The truth is that the presence of the bacillus tuberculosis is a great rarity in all these structures; moreover, if the disease were transmitted by heredity, it should show itself first in the internal organs—in the liver, spleen, kidneys, etc. But that is precisely what it does not. For the liver is very rarely affected and the spleen and kidneys almost as seldom, and then in pretty much all cases only after and in consequence of emigration from the lungs. So, also, most cases of hip disease, vertebral caries, intestinal affections, meningitis, laryngeal affections, etc., follow and depend upon primary deposits in the lungs. This fact was made patent by Louis long ago.

To the lungs we must look for primary affection in the vast majority of cases, and if to the lungs to the air which enters them. The now well-known investigations of Comet supply the evidence missing hitherto. He made sponge scrapings of walls, head-boards of beds, etc., in the rooms inhabited by tuberculous patients, injected infusions of these sponges into the bodies of animals and thus conveyed the disease. When patients used sputum-cups or cuspidors and never spat upon the floor or upon clothing, handkerchiefs, etc., the walls and furniture were pure and free so far as this disease is concerned. But feathers from feather beds cleaned six successive times by different devices still remained infectious.

The closer the room or the more crowded the apartment, the greater is the danger of infection. Hence the frequency of the disease in factories, convents, and prisons. The mortality of prisons mounts in the last years of long imprisonments to ninety per cent. Ziemssen says, indeed, that imprisonment from ten to fifteen years is condemnation to death by tuberculosis. The young "candidates" who come into the convents from the country rosy-cheeked and robust, gradually fall into anæmia, debility and amenorrhœa, the precursors of cough, hemorrhage of the lungs and progressive emaciation.

Houses once infected remain so for many months. Flick showed that in thirty-three per cent. of the houses in Philadelphia multiple cases occurred, only ten per cent. in isolated houses. It is a common observation that members of hitherto unaffected families contract the disease in "moving" to an infected house, and this observation no longer surprises us now that we know something of the tenacity of life of tubercle bacilli. For Cadeac and Millet have shown us that sputum remains infectious after dessication of 102 days, and for six months if kept at a temperature of 77° F. Frozen for a week they still remain virulent for seventy-six days, and Voelsch has proven that a single boiling scarcely attenuates its infectious properties.

It would be difficult to conceive of a conjunction of circumstances more directly contributive to disseminate this disease than is offered in the palace car. It is always badly ventilated, the vestibule car especially, is close and hot, sixteen to thirty people being crowded into a space that might make a small hall in a house, but never a bedroom for a pair of human beings. Somebody is always hurt by a draught, so that windows are kept closed to prevent free ventilation, as well as the ejection of sputum, which is mostly deposited on the floors. Cuspidors never contain water, and are mostly used as waste baskets or slop-jars, and the temperature is raised to a degree sufficient to rapidly disseminate infectious matter.

With the gathering shades of evening the compartments containing the bedding are opened into the car to diffuse through it a disagreeable musty odor. The traveler is treated to the luxury visibly of clean sheets and pillow-cases, but the blankets, mattresses, carpets, and, worst of all, the curtains, remain the same until worn out.

Consider now that every car contains or has recently been occupied by a consumptive traveler, if only en route for a change of climate, and that through ignorance, carelessness, or weakness, there comes to be deposited upon bedding, curtains, etc., tuberculous matter. What becomes of it, if it be not dried and disseminated throughout the car, or gradually incorporated into the lungs of the traveler?

It is a curious fact that the first note of alarm of this kind should have been sounded by a layman, viz., a barrister in Australia, who published in the *Australian Medical Gazette* last November a protest against the admitting of consumptive travelers into the same cabins with healthy people. The danger is in one sense far greater on a ship, in that the people are so closely confined in the cabins, and, as the author states, considerations of humanity prompt the well man to close the port in protection of the sick. Then also the trip is much longer.

These advantages are compensated on the car by the fact that there is from it no escape to the outer air, not even on express trains, for meals or other necessities of life. A man may mount for a breath of fresh air to the deck of a ship, where indeed he passes most of the day, a prisoner is allowed some part of the day a walk in the free, as the Germans say, but a traveler on an express train is for all the world in the condition of the dogs made to breathe, enclosed in boxes of atomised tuberculous matter, until even dogs, naturally immune, become infected with the disease.

But it is one thing to find fault and another to suggest the remedy. The plush velvet and silk hangings must go. Seats should be covered with smooth leather that may be washed off. Carpets substituted with rugs to be shaken in the open air at the end of every trip, or, better still, abolished for hard wood floors. The curtain abomination must give place to screens of wood or leather; blankets of invalid's beds subjected to steam at a high temperature, mattresses covered with oiled silk or rubber cloth, that may be washed off, and above all things, invalids provided with separate compartments, shut off from the rest of the car with the same care taken to shut out the far less offensive or dangerous smoke of tobacco.

The cuspidors, half filled with water, should abound in every car, and consumptive travelers provided with sputum cups, which may be emptied from the car. For it is not necessary to say here that the sole and only danger lies in the sputum. The destruction of the sputum abolishes the disease. When the patient himself learns that he protects himself in this way as much as others, protects himself from auto-infection, from the infection of sound parts of his own lungs, he will not protest against such measures.

It is easy to say too much upon this subject. It is easy to appear in the role of an alarmist, but when we consider the unrecognized source of so many cases in connection with our definite knowledge of the cause of the disease, is it not wise to look at the construction and management of the sleeping car? May it not be a death-trap in more ways than one?

Trusteeing Drunkards.—The German Medical Congress has recommended that drunkenness be recognized as a reason for placing a person under trustees.

EMPHYSEMA.

By E. S. McKee, M.D.,
Cincinnati, O.

VARIETIES.

Virchow(¹) accepts the classification of Laennec who describes two kinds of emphysema—the vesicular and the interlobular.

ÆTIOLOGY.

Lachkievitch(²) says that the exaggerated curvature of the vertebral column plays an important part in the causation of the disease. If, from any reason, there is excessive deviation of the thoracic portion, as a consequence there will be found an augmentation of the antero-posterior diameter of the thoracic cavity and a large expansion of the lungs with a consecutive diminution of their elasticity, dilatation of their alveolas, insufficient ventilation, dilatation of the pulmonary vesicles, slacking of the circulation, augmentation of the pressure in the pulmonary arteries, increased labor and hypertrophy of the right ventricle of the heart. Other things of course aid the work now begun.

PATHOLOGY.

Virchow(³) exhibited specimens of emphysematous lungs to the Berlin Medical Society. These showed absence of pigmentation which he termed an albinian condition of the lung. In the post-mortem room he sometimes finds that portion of the lung which is emphysematous is quite colorless, the pigmentations being entirely absent. He thought without ulceration or destruction of the tissues it was impossible that the pigmentation once deposited there should be made to disappear. Yet one of the lobes of the lung had presented no pigment and was in marked contrast to the other lobe. It is well known that the deposit of carbon is very slight before the fifth year, and that this condition dates from that period. He could not think that there was different expiration previous to the fifth year, for this would favor the deposit of carbon. He thought there must have existed a faulty condition of the canal introducing the air through which the car-

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1. Berl. Klin. Wochenschrift.
2. Rousskaia Medicina (Le Bulletin Medical).
3. Berl. Klin. Wochenschr.

bon was hindered in passing. It is well known that during the first quinquennium there occurs thickening of the mucous membrane and walls of the bronchial tubes, by which means the bronchi are reduced in calibre. Thus we understand why the carbon contained in the air which is inhaled is retained in the upper parts of these bronchi and is again expectorated with catarrhal sputa; in this way it fails to reach the alveola. The distinguished speaker recommended the phenomena to the attention of his hearers, and also the proposition whether emphysema in many cases did not date back to a very early age. He asked the question whether this theory was not based on sound anatomical foundation. Professor Virchow had never found tubercles in a lung the seat of emphysema. In only one instance had he found pneumo-thorax.

SYMPTOMATOLOGY.

Gerhardt(4) describes four cases of emphysema of the mediastinum occurring in his clinic in Berlin. An important symptom of diagnosis in all of them was a fine bubbling crackling like that of pneumonia, synchronous with the action of the heart. This crackling is evidently caused by a displacement of the air bubbles in the mediastinum by the motion of the heart. It is heard in the whole cardiac region, but cannot be felt by the hand. There is a disappearance of the cardiac dullness and in its stead an abnormally loud, sonorous, somewhat tympanitic percussion sound. The visible and tangible apex beat disappears and the inter-costal sunken spaces fill up. The diagnosis of this condition is much easier when a skin emphysema is also present. It is usually not a dangerous complication.

TREATMENT.

Rolleston(5) reports a case occurring in St. Bartholomew's Hospital, in which a patient suffered from advanced emphysema, slight bronchitis and dilatation of the right side of the heart. On two occasions, when a one-drachm dose of paraldehyde was administered, he suffered severely from dyspnœa and collapse, dying after the second dose. It appears that the drug is not without danger in cases where the respiratory center is depressed and some degree of cyanosis is already present.

Wood,(6) in his experiments, found that toxic doses produced death in frogs by paralysis of the respiratory center. Thirty-five or forty-five grains cause profound sleep in a rabbit with progressively diminishing respiration, and at last death from asphyxia without convulsions.

Rossbach's(7) chair can be worked by the patient or an attendant and affords great relief. It is of the ordinary wooden variety, without arms and with a straight back. The seat is prolonged backward about three inches and two horizontal brackets are attached to the top rail. These support two wooden cylinders about three inches in diameter and as long as the back of the chair. These are placed on each side just without its outer rail. These revolve on iron pins, which pass through the projection of the seat and the brackets respectively. At the bottom of each is attached a lever or wooden handle of convenient length for the patient to grasp with his arms extended. When drawn forward parallel to each other the cylinders make a partial revolution. A broad band of strong webbing passes across the chest of the seated patient, and is attached by eyelet holes to a row of studs on the inner face of the two rollers; therefore on pulling the handles forward the thorax is compressed to any extent which may be thought necessary. The bandage is divided in the middle and is fastened in front as a corset. The patient seats himself in his chair, well back, the levers are drawn outward and the belt adjusted so as to press equally over the thorax and is fastened to rollers on either side. Extending his arms he grasps the handles, takes a deep breath, and, as expiration commences, pulls them slowly forward; the act completed he pushes them somewhat quickly to their first position, takes another deep breath, pulls them gently together again as far as he finds necessary and so on. Here we have artificial respiration with an automatic operator. These movements are timed and persisted in, as long as the physician may direct, fifteen times per minute for ten minutes three times a day. This instrument equally compresses the chest; the patient can use it when once

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4. Berl. Klin. Wochenschr.
5. Practitioner.
6. Therapeutics.
7. Vratch.

adjusted either day or night; any carpenter can make it, and it is very cheap. It can be used simultaneously with other forms of physiological treatment, such as Waldenburg's cabinet, or conjoined with the use of expectorants and cardiac tonics.

Berdez([8]) believes that in some cases the respiratory act is imperfectly performed, because the intra-abdominal pressure is insufficient. In other cases because the elasticity of the lungs is defective, and consequently the diaphragm does not relax to its full extent on account of the resistance they offer. Believing this theory he thinks good will be accomplished by keeping up some pressure on the abdominal walls by means of an abdominal belt, somewhat similar to those employed by gynecologists. This will sustain the intra-abdominal pressure, and during inspiration enable its contents to cause the movement of the lower ribs; while during expiration they will push up the diaphragm and compensate for the defective elasticity of the lungs.

Lachkievitch([9]) says that the best remedy for this disease is gymnastics.

Restoration of the Integument of the Upper Lid.—Dr. J. E. Weeks (*Archives of Ophthalmology*) concludes a paper thus:

1. The transplantation of a flap without a pedicle is not so likely to succeed as is transplantation of a flap with a pedicle, and should only be employed when suitable tissue for a flap with a pedicle cannot be utilized.
2. Provision should be made for a shrinkage to about one-fifth of the area of the flap *marked out* for removal.
3. The flap should be carefully dissected from the subcutaneous tissue, nothing below the rete mucosum or papillary layer being removed; it should be kept warm during the process.
4. All bleeding should be stopped before the transfer is made.
5. No sutures are required or desirable to secure the flap.
6. The bandage should be permitted to remain *in situ* from five to seven days before changing.
7. Thorough asepsis should be observed during the whole procedure.

Correspondence.

CHIT-CHAT FROM LONDON.

London, Aug. 1, 1889.

Editor Lancet-Clinic:

Dear Sir: After an absence of over a quarter of a century from London practice, I see much to awaken my curiosity as well as admiration. There is something charming in London, not in the ragged crossing sweeper, who has his cosy home in the suburbs, nor the bloated, ill-clad coster-monger, or the boy dressed in festoons of dilapidated apparel, who breaks the laws by taking roach from the Serpentine, but rather in the varied and numberless amusements. The floating population of London is ever eager to be amused; a beautiful American girl, in the character of Paul Jones, has represented that character over five hundred successive times without any signs of cessation. So there is something more than hospital practice to fascinate the medical visitor. Looking over the many miles of occupied ground constituting London, he wonders why, with its fog and its vast laboring population, it should be one of the most healthy cities in the world; but he finds that sanitary regulations are strictly enforced, and that open spaces of ground are kept reserved for the people.

The private parks surrounded by houses called a "square," are partly hidden from the public gaze by hedges of evergreens, as laurel and holly, their interiors are flooded with flowers, the seats being planted in bowers, under the branches of overspreading trees. Here the neighboring medical man, whose children with their nurse maid may be already there, dressed in a flannel uniform and admitted by a key, may meet his neighboring medical brethren in a game of lawn tennis; or, to escape from the fumes of chloroform and the strain of successive operations, he drives with his wife in the park, rides in Rotten Row, or strides his bicycle and rides over Hampstead Heath, by the beautiful residence of Sir Spencer Wells, whom, perhaps, he may meet, seated by the side of his daughter, and driving, as I have known he has done for thirty years, a team of spirited horses, with the groom in livery behind, his arms akimbo, looking as if he were lord of all he surveyed.

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[8] Revue Medical.

[9] Rousskaia Medicina (Le Bulletin Medical).

Here again we see him shaking hands with the Prince and Princess of Wales at the garden party given in honor of the Shah, mistaken, as he told me, for a noble lord of less note, and again with the Prince at the reception after the Royal wedding at Marlborough House. Here he is also in the spare form of Sir Rutherford Alcock at the banquet at the Hotel Métropole, seated between the Duke of Cambridge, cousin of the Queen, and commander of her forces, and Lord Napier, of Madala, one of the heroes of India, with the red ribbon of the Order of the Bath round his neck, at the banquet. I miss the "edam" of the dentists' banquet at the Burnet, for which no one seemed to care an edam, but there are many things on the menu difficult of interpretation, as well as filets de sole a la Dieppoise, fritot de Ponlet a la Viennoise, selle d'Agneau with sauce menthe, with "Niersteiner" gold lack, "Royal Charles," champagne and Johannis Natural Mineral water. After the banquet the toastmaster announces the toasts, and the Christian physician among the poor, in the person of Henry Power, rises, and in graceful language briefly addresses his few wealthy and influential hearers in behalf of the afflicted poor, and finds subscriptions of over $5,000 placed into his hand. At the conversazione at the College of Surgeons, we see him in his different phases. He is in evening dress, his breast sparkling with orders and his wife with flowers, jewels and train, leaning upon his arm; he looks as happy as a schoolboy out for holiday. He is ubiquitous, social and smiling; his wife seems as happy as he; she looks with interest at the rows of jars, containing pathological preparations, at the different portions of the human body, dissected and preserved to show each component part, as well as at the innumerable specimens that compose the Hunterian Museum. They are also entertained with music, as well as photographs taken by Americans, to show the peculiar action of horses' feet when running.

Here the medical man is at home, with the representatives of his profession from all parts of Great Britain. Sir James Paget, as well as other surgeons and baronets, from some of the 130 hospitals in London, is moving quietly around, with his eloquent son, shaking hands here and there, his spare form, his piercing eye, his stooping shoulders, suggestive of hard work, while the full form and tall figure of J. Hutchinson is seen moving among the surgeons, prying round for interesting details of cases. Now enters a very lively-looking man, well known by his writings and brilliant operations to many Americans. His medium-sized form is unduly erect, his girth is ample, his full face is wreathed in smiles, his dark eyes fairly dance with anticipated adulation. Some admirer from America proposing his health on one occasion referred to the fact of his sometimes drawing the long bow, by saying: "He had been with him a whole week and had never detected him once in an untruth, and for his part be believed every word he said." We accompany the physician in his carriage. One eminent member of his calling, who has the most perfect manners for a host of any one in the world, has a reception to which four to five hundred, including their wives, of men of letters are hurrying. Stepping under the awning and ascending the broad stairway, the footman announces the name, when the hostess, with her husband, in their most winsome way, usher their visitor into the tastily decorated and brilliantly lighted rooms. As he moves around, avoiding the sweeping trains, he recognizes men and women, with whom the whole world is familiar. The blue Hungarian band is discoursing the sweet music of Potpourri, Mignon, Ritka, Burza, Tannhauser, Lujza, Csardas, or Masaniello, and, offering his right arm first to one lady and afterwards to another, he escorts her through fairy-like byways either to supper or to another compartment, where ices, champagne, strawberries and cream, wine negus and lemonade await them. With courtly and polished manner, tripping lightly and pleasantly from one subject of conversation to another, he escorts his fair companion to her seat and ministers to her wants. After supper, when the hours begin all over again, youth and beauty meet to chase the hour with flying feet, while Herr Berkos Bela guides their footsteps through the figures of the lancers, valse or polka.

Then he is met again at the private dinner, consisting of ten or fourteen guests, escorting the hostess from the drawing room and seating himself by her right hand side. The host is a medical man, and has handed down the last bride, while his wife had been escorted by his medical friend from India or America. At dinner it is difficult for all to avoid saying something that had better been left unsaid. Some one, not quite of the set, may engage the attention of the hostess with a minute account of the baby's diet and doings, or she may ask inconvenient questions concerning other guests as to the cause of certain redness of the skin, or whether the lady opposite has a family, starting a conversation on what has been told her, or a brother practitioner, who has written a book, may be a little too overwhelming by recounting the incidents of the day. The dinner, which is plain, may consist of Julienne soup, with dry sherry, followed by salmon with sauce Hollendaire, veal quenelles, lamb cutlets, boiled fowls, shoulder of lamb and champagne, tarts and fruit jelly, and old bottled port, cheese, straw's dessert, and claret wine. In the drawing-room the conversation is relieved by the rounds with the violin and piano, or the "Bedouin's Love Song," or "Shall We Forget," which is not likely, by two persons at least, as the cups of tea, gliding on a slippery saucer, falls upon ivory satin and alencon lace, as well as upon the silk lining of a dress coat.

The London physician, however, is but half what he seems; his wife has made for him the better half of his position. She cheers him when he is careworn, defends him if blackmailed, gives lessons in music when he is poor, illustrates his book and revises the text, manages his household and trains his children, brings around him the choicest of his friends, assists him in his correspondence, conducts the family prayers in his absence, returns friendly calls and finally assumes the title of "lady" with dignity and grace.

Calling upon the general practitioner, who may be in receipt of $15,000 a year, at his beautiful home, which he has built in the suburbs, we find his children just returned from a walk with their governess, the little man dressed in silk hat, jacket and pants, with lay down white collar lying over the collar of his jacket, calls the sporting dog "Sharp," in shaggy coat, to him, and is soon describing to you all his antics and accomplishments, while his sister, with large dark eyes and flowing hair, is equally pleasant and at home with you. The four o'clock tea is served, the bread and butter cut in very thin slices, is curled to avoid soiling the fingers, and the lady, dressed with taste but neatly, flatters her visitor's vanity by inducing him to speak of himself, and makes him believe by her speech she favors him with her confidence. The general practitioner, however, is a far more showy man than the consultant. Usually he is lively and animated in manner, wears heavy jewelry, is a good judge of horses, and has his groom to show you the last purchase. In his stable are three or four horses, while his carriages will consist of phaeton, Victoria or Brougham. The rooms of his house, with costly furniture and knick-nacks, look light as well as beautiful. Usually he has a conservatory, while the lawn, soft as a carpet, is fringed with flower beds and shaded by the branches of overhanging trees. A tall brick wall closes it from the rude stare of the world.

Bending before the cross, of which the medical man knows so much, there he is with his brethren forming the "St. Luke's Guild;" clergymen in their robes are with him to learn of him. One of the most learned of post-graduates, descended from the discoverer of the Circle of Willis, having a most melancholy cast of features, discourses on the "Duty of Cheerfulness."

With a promise of more next month,

Yours, truly,

"Bull's Eye."

Prognosis of Cirrhosis of the Liver.—Professor Semmola, of Naples, in a clinical lecture on Cirrhosis, published in *Il Progresso Medico*, maintains that the prognosis of the disease depends entirely on the quantity of urea excreted during twenty-four hours, as he has proved to his entire satisfaction in seven cases. He teaches that increase in the secretion allows a much more favorable prognosis than a decrease. The quantity of urea secreted corresponds, according to him, with the functional activity of the hepatic cells; so that the extent of nitrogenous metabolism is proportionate to the number of normally acting cells. For the treatment of the disease Professor Semmola recommends an exclusive milk diet, which must be systematically and regularly administered.—*Lancet.*

PUNCTURE OF THE INTESTINE IN OBSTRUCTION.

[*The Practitioner.*]

Rosenbach (*Berlin. klin. Wochensch.*,) gives four cases where this method of treatment led to great relief, and was unattended by any untoward results. The first case was in a woman who suffered from intestinal symptoms—attacks of meteorismus, constipation, and colic lasting sometimes hours, sometimes days. When first seen she had moderate obstruction, considered to be caused by a tumor; after the patient had in vain attempted to get relief from narcotics and purgatives, several punctures were made, giving vent to offensive gas, with the result that in a week she lost all her urgent symptoms, and a purgative produced free motion of the bowels. A year later she was seen again with a similar attack, which had lasted eight days; four punctures relieved her greatly. As the tumor was growing, she was advised to submit to operation. Extensive peritoneal adhesions were found, and death resulted. The second case was in a badly nourished woman, four to five months pregnant. Intestinal troubles were present; with extreme meteorismus, vomiting, and complete constipation. All the usual remedies proving of no avail, repeated punctures were carried out from time to time with marked relief, until her confinement of triplets put an end to her troubles. In the third case—that of a man aged 53—there was probably malignant disease of the cæcum. He had for several weeks enormous flatulent distension with violent colic; there was almost complete constipation as well as symptoms of slight peritonitis. Puncture of the abdomen twice daily procured great relief—the abdomen became softer, the dyspnœa lessened, and the appetite improved, while after each puncture flatus and some motions escaped by the bowel. Later on an artificial anus was made, but the patient died suddenly afterwards. The last example quoted is that of a well-built girl, 23 years of age, suffering from symptoms of severe perityphlitis. From the beginning meteorismus and tenderness were marked, and the characteristic tumor was felt in the iliac region. There was likewise vomiting of bilious fluid with a tendency to diarrhœa, which was relieved by opium. These symptoms increased, and dyspnœa became so urgent that the intestine was punctured. It was done from the fourteenth day one to three times daily, giving relief always to stinking gas and fecal matter. The result was most satisfactory. The improvement at first lasted from eight to twelve hours, but after the fifth day it continued two days; while from the ninth onwards she improved so much that it was thought she would recover. Unfortunately, exhaustion with bleeding from the bowel set in, followed by death. The necropsy showed gangrene and perforation of the cæcum, but the intestines corresponding with the punctures in the skin had no trace of peritonitis. In carrying out the procedure, Rosenbach uses a canula two inches long, and selects in the upper half of the abdomen the most prominent spot in the median line. The instrument is inserted slowly, in order to avoid displacement of the underlying gut. After the instrument is withdrawn, small doses of opium or morphine are indicated, to quiet the patient and prevent peristaltic movements of the intestine. —*The Practitioner.*

CAUSES OF LOCAL RELAPSE IN CANCER AFTER REMOVAL OF THE BREAST.—Heidenhain, of Berlin, has recently put on record the results of some investigations on the causes of the frequent return of cancer after removal of a breast affected with this disease (*Congress of the Society of German Surgeons*, April 24). Examination of eighteen cancerous breasts removed by operation has led to the conclusion that such relapse is due to the retention in the wound of small portions both of the growth and of the diseased mammary gland. This incomplete removal is due for the most part to anatomical conditions. The fascia pectoralis, it is stated, has very close relations with the muscle on the one hand, and with the breast on the other, being continuous by means of processes of connective tissue with the perimysium of the pectoralis major and with the fibrous septa of the gland. Some of the smallest lobules of the gland penetrate the fascia and rest in contact with the muscle, and so are likely to be left behind in excision of the breast. In corpulent subjects the fascia is enclosed in a thick layer of fat, interposed between the pectoralis major and the mammary gland. This layer of fat, which encloses a number of gland globules, canno be completely separated from the pectoralis without removal at the same time of the anterior surface of this muscle. In two-thirds of his specimens of mammary cancer Heidenhain found small metastatic deposits in the lymphatics passing from the gland to the pectoral muscle through the retro-mammary connective tissue and fat. In cases in which the affected breast can be moved freely over the fascia, these cancerous metastases may be followed as far as the surface of the muscle, but do not extend into its interior. In such cases, therefore, it will suffice to remove just the surface of the muscle; but when the cancerous gland has contracted close adhesions to the pectoralis, the fibres of which are consequently mixed with abundant cancer elements, the whole of this muscle, together with its periosteal attachments, ought (according to Heidenhain) to be removed. Such procedure, it is stated, does not result in any serious functional disturbance. In cases in which the whole muscle had been removed by Küster, the subsequent impairment of motion of the upper extremity was so slight as to be scarcely appreciable by the patients.—*London Med. Recorder.*

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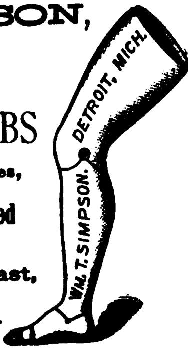
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HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending August 10, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	...	..	...	..	...	..	...
2nd	...	..	...	..	...	..	...	..	...	..	...
3rd	...	..	...	..	...	..	...	..	...		...
4th	...	..	4	..	...	..	...	..	...	..	...
5th	...	1	...	..	1	..	...	..	...	..	...
6th	...	..	...	..	...	..	...	..	...	..	...
7th	...	..	...	..	...	..	...	..	...	..	1
8th	1	..	...	..	...	..	...	..	...	..	...
9th	...	..	...	..	...	..	...	..	...	..	..
10th	...	..	...	..	...	..	3	1	...	..	...
11th	3	..	...	..	...	..	...	..	...	..	1
12th	...	..	...	..	...	..	1	..	...	..	...
13th	1	..	...	..	...	..	1	1	...	..	1
14th	1	..	...	..	...	..	...	..	...	..	...
15th	1	..	...	..	1	..	1	1	...	..	...
16th	...	..	...	..	...	..	1	..	...	..	...
17th	...	..	...	..	1	..	...	..	...	..	...
18th	...	..	...	..	...	..	...	..	...	..	...
19th	...	..	...	..	4	..	3	..	...	1	...
20th	1	..	...	..	...	..	1	..	...	..	...
21st	...	..	...	..	...	..	2	..	..	..	1
22nd	1	1	..	..	1	..	1	..	...	..	...
23rd	1	..	...	..	...	..	3	..	...	..	...
24th	...	..	...	..	1	..	1	1	...	..	...
25th	...	..	...	..	...	..	...	..	...	1	...
26th	...	..	...	..	...	..	...	..	...	.	...
27th	...	..	...	..	...	..	...	..	...	..	...
28th	1	..	...	..	...	..	...	..	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	1	..	...	..	...	..	5	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	..	...
Home of Fr'ndl'ss	...	..	...	..	...	..	...	..	...	1	...
Marine H..	...	..	...	..	...	..	...	..	...	..	...
Totals	13	2	4	..	9	..	23	4	...	3	4
Last week	7	4	3	..	3	..	10	6	...	4	1

The following is the mortality report for the week ending August, 10, 1889.

Croup	4
Cholera Infantum	6
Cerebro-spinal Meningitis	3
Diarrhœa	2
Dysentery	1
Diphtheria	4
Entero-Colitis	6
Measles	2
Typhoid Fever	3
Other Zymotic Diseases	4—35
Cancer	2
Phthisis Pulmonalis	8

Other Constitutional Diseases	7—17
Apoplexy	1
Bright's Disease	1
Convulsions	4
Heart Disease	4
Liver Disease	5
Peritonitis	2
Pneumonia	4
Other Local Diseases	29—50
Old Age	1
Premature Birth	5
Other Developmental Diseases	7—13
Accidental	1
Suicidal	1
Unknown	1— 3
Deaths from all Causes	118
Annual death rate per 1000	18.88
Deaths for corresponding week in 1888	144
Deaths for corresponding week in 1887	151

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 42 observers (embracing 37 counties) show the following diseases to prevail for the week ending Friday noon, August 9, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Diarrhœa	36	124
Cholera Morbus	25	46
Dysentery	22	35
Cholera Infantum	15	36
Tonsillitis	15	24
Bronchitis, acute	13	17
Intermittent Fever	12	41
Rheumatism (acute)	12	17
Typho-Mal. Fever	9	23
Remittent Fever	9	18
Typhoid Fever	6	8
Whooping Cough	5	10
Pleurisy	5	5
Erysipelas	3	3
Pneumonia	3	3
Consumption (Pul.)	2	2
Diphtheria	2	2
Scarlet Fever	1	2
Measles	1	2
Puerperal Fever	1	1
Cerebro-Spin. Men.	1	1
Croup, membranous	0	0

REMARKS.

Diphtheria reported by observers at Louisville and Potsdam. Reported by health officers: Cincinnati, 4 deaths; Xenia, 5 cases, 1 death; Toledo, 4 cases; Middletown, 1 cases; Zanesville, 1 case.

Scarlet Fever reported by observers at Delta. Reported by health officers: Xenia, 1 case; Marysville, 3 cases; Perrysburg, 2 cases; Orville, 1 case; Painesville, 1 case.

Typhoid Fever reported by observers at Wyoming, Caldwell, Wadsworth, Bethel, Plymouth, and Burton. Reported by health officers: Piqua, 10 cases; Perrysburg, 10 cases; Youngstown, 2 cases; East Liverpool, 6 cases, 3 deaths.

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Cincinnati, August 17, 1889.

The Week.

THE ELIXIR OF LIFE.

When Koch's discovery of the bacillus of tuberculosis was published, a thrill of elation went through the entire medical profession. A memorial stone was erected that marked the dawn of a more exact science as displayed in our knowledge of the diagnosis and treatment of a disease that continuously claims a greater number of victims than any other that afflicts the human race.

The laity never realized that the sum of man's knowledge of himself had received a very valuable addition.

This discovery was quickly followed by others in the same domain, and to-day the germ theory of the cause of many diseases is almost universally accepted by educated physicians.

Suddenly, almost in the twinkling of an eye, the medical profession is called upon to deal with the most striking phenomenon of the age, just offered to the world by the aged and renowned scientist, Professor Brown-Sèquard, in what is popularly termed the use of the Elixir of Life, which consists of the testicles of inferior animals being removed, and immediately cut in small pieces, triturated or mashed so as to express and expel the living spermatozoa and juices of the gland, the straining of these juices, composed of serum and sperm, and immediate injection with a hypodermic syringe into the cellular tissues of old and physically broken-down men.

The process has been tried by a great number of physicians, with the most diverse reports of the results.

The secular press, day after day, teems with comments, interviews, and statements of the wondrous powers and efficacy of the promising treatment, and the prurient tastes of the people are pandered to ad nauseam, until we are constrained to ask, Why is this thus? Why this public discussion of a subject that is usually tabooed in common conversation? At first it was taken up by the papers very daintily, but it was enough to excite the lively imaginations of a host of readers, and these people wanted to know more about what they hoped was a potent aphrodisiac and actual live forever business.

Many at once thronged physicians' offices, and at every opportunity hailed their medical advisors to consult them in regard to the new fountain of life that has brought hope to their fainting hearts.

Never until now has the medical profession been made to realize that more than half of the men of the period believe their genital organs are very much below normal, and their owners are in a frame of mind that makes them willing to undergo a minor surgical operation and endure any probable amount of pain, for a very slight assurance that for them the generative standard could be raised to a degree that would be entirely satisfactory to themselves.

It is only a few years ago that the discovery was made that nearly all of women's ailments were due to derangements of the uterus and its appendages. The medical profession was at once equal to the occasion and discovery, and there sprang into being the now potent gynecologist. We will now usher to the front the man who will make a specialty of the treatment of the male genitalia. The transfusion of vital fluids from the inferior animals to man will be thoroughly investigated and its utility proven, or it will be relegated to the past as a visionary dream.

There will be developed a professional business that has heretofore been almost exclusively in the hands of quacks and charlatans of the lowest order. In fact, prior to this time, men who believed themselves to be sufferers from genital infirmities, avoided a narration of their troubles to respectable physicians, and often after nightfall clandestinely visited so-called lock hospitals and fiends, who professed to restore manhood and rejuvenate weak organs. Women will no longer control as by a patent right all the little gossip pertaining to flexions, displacements, atrophies and hypertrophies, regularities and ejaculations, and the never failing visual and digital examination with the explicit injunction to return at a specified time.

The greatest good that will result from this New Elixir of Life will be the creation of a new body of specialists, whose time and talents will be devoted to affections of the male genitalia, while timid, blushing, bashful men will be provided with reliable professional counsellors, whose names and scientific attainments will become as household words; while untold numbers of infants will be named after the useful doctor, and even more frequently than now will births be announced in the daily paper with "Thanks to doctor."

Who of the laity know of Sims and Wells, Thomas and Tait? But to-day the name of Brown-Séquard and his Elixir of Life is heralded almost as that of a Divinity.

THE editor of the *American Lancet* puts the query, "What has become of the pneumatic cabinet?" As an accomplished editor, he should know that the cabinet and its functions were wind and nothing but wind; and the wind goeth where it listeth. Being in an inquiring state of mind, he also propounds: "What doctor now employs sulphuretted hydrogen injections for the cure of phthisis?" And again we refer him to the winds.

F. A. DAVIS, of Philadelphia, has in press a new work on the "Practical Applications of Electricity in Medicine and Surgery," by Dr. G. Liebig, Jr., of Johns Hopkins University, and Prof. George H. Rohé, of the College of Physicians and Surgeons of Baltimore.

The part on Physical Electricity, written by Dr. Liebig, one of the recognized authorities on the science in the United States, will treat fully such topics of interest as storage batteries, dynamos, the electric light, and the principles and practice of electrical measurement in their relations to medical practice.

Prof. Rohé, who writes on Electro-Therapeutics, discusses at length the recent developments of electricity in the treatment of stricture, enlarged prostate, uterine fibroids, pelvic cellulitis, and other diseases of the male and female genito-urinary organs.

The applications of electricity in dermatology, as well as in the diseases of the nervous system, are also fully considered.

The work will be fully illustrated by engravings and original diagrams.

BROWN-SEQUARD'S TESTICULAR INJECTION.—Dr. Brown-Séquard gives, in *The Lancet*, the following account of the technique of his injections: "I have made use, in subcutaneous injections, of a liquid containing a small quantity of water mixed with the three following parts: First, blood of the testicular veins; secondly, semen; and, thirdly, juice extracted from a testicle crushed immediately after it has been taken from a dog or a guinea-pig. Wishing in all the injections made on myself to obtain the maximum of effects, I have employed as little water as I could. To the three kinds of substances I have just named, I added distilled water in a quantity which never exceeded three or four times their volume. The crushing was always done after the addition of water. When filtered through a paper filter, the liquid was of a reddish hue and rather opaque, while it was almost perfectly clear and transparent when Pasteur's filter was employed. For each injection I have used nearly one cubic centimetre of the filtered liquid. The animals employed were, a strong, and, according to all appearances, perfectly healthy dog (from two to three years of age), and a number of very young or adult guinea-pigs. The experiments, so far, do not allow of a positive conclusion as regards the relative power of a liquid obtained from a dog and that drawn from guinea-pigs. All I can assert is that the two kinds of animals have given a liquid endowed with very great power. I have hitherto made ten subcutaneous injections of such a liquid—two in my left arm, all the others in my lower limbs—from May 15th to June 4th last. The first five injections were made on three succeeding days with a liquid obtained from a dog. In all the subsequent injections, made on May 24th, 29th, and 30th, and June 4th, the liquid used came from guinea-pigs. When I employed liquids which had passed through Pasteur's filter, the pains and other bad effects were somewhat less than when a paper filter was used."

GERMAN PHYSICIANS ADOPT A CODE OF ETHICS.—On June the 24th the seventeenth Congress of German Physicians met at Brunswick, and passed the following resolutions: 1. Every kind of public laudation, whether it proceeds from the physician in question himself or from others, and continued advertising in public papers are to be reprobated. 2. The designation 'specialist,' for puffing purposes, is to be reprobated. 3. The public offering of medical assistance gratis, underbidding in concluding contracts with sick societies and the like, offering advantages of any kind to a third person in order to procure practice, are inadmissible. The designations 'Klinik' and 'Poliklinik' (hospital) belong exclusively to institutions which serve the purposes of instruction in connection with universities. 4. The ordering and recommending of secret remedies are inadmissible. 5. Any attempt of any kind on the part of a physician to intrude upon the practice of another is dishonorable, especially in the case of one who has acted as substitute or in consultation. A practitioner must by no means undertake the treatment of the case without the express assent of the previous physician. A specialist called in for a definite part of the treatment must strictly confine himself to that. 6. No physician is at liberty to make disparaging remarks to others about another physician.—*Med. Record.*

How to Clean Hypodermic Syringes.—Syringes, whose canals have become obstructed so that a fine wire cannot be drawn through, are cleaned by holding them for a moment over a flame; the foreign substance is thus quickly destroyed and driven off. If a wire has been rusted into the needle, it should be dipped in oil before holding over the flame. To remove the rust from the interior of the canula, it is well to pass oil through the canula, then rinse it out with alcohol. The needle is then ready for use.—*Duetsch. Med. Wochenschr.*

Vomiting in Pregnancy.—A writer in the *Lancet* says: I have not failed once for many years, by a single vesication over the fourth and fifth dorsal vertebræ, to put an end at once to the sickness of pregnancy for the whole remaining period of gestation, no matter at what stage I was consulted. The neuralgic toothache and pruritus pudendi of the puerperal condition yielded as readily, and to one application.

Sulfonal.—We notice in the London *Lancet*, July 13, 1889, in an "Abstract of the Croonian Lectures," by T. Lauder Brunton, M.D., F.R.S., on the subject of Hypnotics, page 60, that he says of sulfonal: "Sulfonal appears to be one of the most effective of all the newly-introduced hypnotics, and although it does not, like morphine, compel sleep, it induces sleep in a pleasant manner, and has few disagreeable effects and little or no danger."

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations.

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Obituary.

C. C. HILDRETH, M.D.

Dr. C. C. Hildreth, one of the oldest and best known practitioners of medicine in Southern Ohio, died at his home in Zanesville, August 11th. The action of the local profession expresses the profound regard in which he was held by his confreres and the community in which he lived.

THE PROFESSION OF ZANESVILLE.

The Zanesville Medical Society held a meeting in the Probate court room, with a large number of the members present. It was decided to attend the funeral of Dr. C. C. Hildreth in a body. A committee, consisting of Drs. Culbertson, Bell, and Holston, was appointed on resolutions. The following was reported:

Again has the "Zanesville Medical Society" been deeply afflicted, in the death of Dr. C. C. Hildreth, on the 11th of August, 1889, of hemiplegia and brain extravasation. Born in 1811, reared in Marietta, Ohio, a graduate of the Ohio University, and later, in 1833, of the Ohio Medical College, he settled in this place in the spring of 1833, where he has continued to practice his profession fifty-six years. Amidst sunshine and cloud he has not failed to respond to his professional duties, save for a half day, from sickness. Such faithfulness is phenomenal, and reveals the highest sense of duty which actuated him throughout a long and most successful medical career. His reputation was known not only throughout this State, but extended, from his writings and medical skill, over a wide area of our country. His perception of disease was most acute and application of remedies remarkably skillful. He was bold yet prudent, not only in minor but in major surgery in all his numerous operations. He was a wise obstetrician, this branch of his practice reaching about six thousand cases. He was a most assiduous student, which his large medical library attested. No physician ever lived who was more punctilious as to medical ethics and the duties and obligations of his profession. He was liberal with his patients financially. No physician's heart ever beat more kindly for his patients than his. The memory of his self-sacrificing and untiring services will never be forgotten by those who have felt his skill. Numerous families will be bereaved in his death. This society will know him no more. His place will be vacant. There is no one here who can fill the void which this great physician has left. His words of wisdom will no longer fall gently from his lips. His pleasant smile will greet you here no more. His stately and erect form now lies low and soon will fill the dark recesses of the tomb. His punctual footsteps will no longer be heard. It may well be asked, when shall we see his like again? Let us then cherish his memory, practice his virtues and emulate his skill.

The chalice is broken, the wine is spilled and there is naught left to us but the memory of his greatness.

Then let us sadly follow his remains to the tomb in testimony of our love and adoration for our departed brother, and there shed with the bereaved family the tears of sincere sympathy.

H. Culbertson,
A. E. Bell,
J. G. F. Holston,
Committee.
Zanesville, O., August 12, 1889.

A Warning for the Bathing Season.—Experience forbids us to imagine that the bathing season can come and go without exacting its never-failing tribute of human life. Among the numerous causes of accidental drowning it may be instructive to consider some of those which are mainly or entirely personal, and so far preventable. Chief among these, we need hardly say, is cramp. To a large extent this is practically identical with fatigue, for it is not the fresh and vigorous muscle which most readily passes into spasm. It is that which is wearied with over-action, in which effete products are in excess, nutrition consequently impaired, all molecular changes languid; where, finally, the movement of contraction, once initiated, gives way but slowly and tends to linger and become tetanic. The numbing influence of cold is another well-known obstacle to muscular activity and for this reason it is not as a rule advisable to remain more than a few minutes in the water. Malnutrition of muscles is a factor which ought not to be forgotten. It supplies a reason why bathing very soon after a meal is not advisable, much of the blood required for muscular exertion being then diverted to the digestive organs. So likewise must it impose a check upon the rashness of those, adult and youth alike, who after a period of town life, with little physical exercise, find themselves at the coast, and insist on trying whether with jaded energies they cannot safely accomplish feats of swimming. Yet one more caution. This is that every bather should know the state of tide, the currents, and the ground. Unless he is thus careful, he may find himself at any time confronted by unexpected dangers, the end of which it is impossible to foresee. It may seem ridiculous to urge that only those who really can swim should bathe in deep water, yet neglect of even this precaution is by no means uncommon. —*Lancet*.

A New Process for the Treatment of Sewage.—A private demonstration was given at the Wimbledon Sewage Farm on Friday last of a new process for the treatment of sewage which is known as the "Amines" process. Among those who were present were Lord Rosebery, Dr. Klein, Dr. Hake, Dr. Campbell Pope, Dr. Abraham, Mr. Percy Dunn, Mr. Chatterton, Dr. Lloyd, Mr. John Barker, Mr. Bennett Williams, and others. The process consists in mixing with a solution of lime a certain proportion of "herring brine," and then passing the mixture into the crude sewage, which is afterwards in the ordinary way passed along the culverts into the settling tanks. It is claimed for the process that it recognizes the fact that the principal evil to be dealt with is the presence in sewage of teeming numbers of bacteria, to whose vitality the putrefaction of the organic matters in solution and all the attendant phenomena are primarily to be attributed. The result of the chemical union of the two substitutes above mentioned is the evolution of "Amine" gas, which is very soluble, and spreads with great rapidity through every part of the liquid sewage. By experiment this gaseous re-agent has been found to be antagonistic to the existence and propagation of every species of bacteria occurring in sewage and other similar waters. Thus the effluent, after the sewage has been treated by the "Amines" process, is found, according to

Dr. Klein, to be perfectly free from micro-organic life, and it is at the same time inodorless and without color. These facts, which were shown to the visitors at Wimbledon on Friday last by Mr. Ellice Clark, together with other interesting details, which are shortly to be made public, were incontestible as far as they went. Undoubtedly a great step has been made towards the solution of the great problem of sewage treatment by the discovery of a reagent by which sewage can be practically and effectively sterilized. We shall be glad to refer to this matter again as soon as we come to learn something more ot its practical application. The London County Council would be well advised to permit an experiment to be made of this process at the pumping station at Crossness.—*Med. Press and Circular.*

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ON GONOCOCCI.

[Vienna Corr. *Med. Press and Circular.*]

Professor Neisser (Breslau) read a very interesting paper at the Dermatological Congress entitled, "Is the Gonococcus the Virus in Gonorrhœa?" He firmly believed that the gonococcus was pathogenic in gonorrhœa, which he considered proved by the fact of finding the gonococcus in conjunctivitis from a gonorrhœal discharge or in rectal gonorrhœa. He did not believe with Bockhart and others that gonorrhœa was produced by any trifle or simple septic unless this microbe was present. It may be true that gonococcus has been found in the conjunctivitis of colpitis and blenorrhœa, but it may be possible that the discharge of blenorrhœa or urethritis is unfavorable for the growth of the microbe, though not destructive enough to kill it. This view is sustained by the results of vaccinating and cultivating the bacteria which were conducted by Bumm.

Lustgarten and Munnaberg have observed the dipplococci in the healthy urethra, which in outward appearance resemble the gonococci, and may thus be mistaken for the gonorrhœal specific. There are marked differences in these microbes. The dipplococci will thrive and spread rapidly on the same soil that the gonococci will breed upon, but the gonococci will not thrive on the same pabulum that the dipplococci will. This difference forms the differential diagnosis. Blood serum is necessary for the growth of gonococci. In the chronic form of gonorrhœa the gonococci may seem absent, but if the urethra be first well washed out with a solution of sublimate to destroy the saprophytic germs that may be present this diagnostic difference is proved at once. It was also observed that the quantity of matter discharged is not in proportion to the number of gonococci present, as this will depend much upon the sensitiveness of the mucous membrane, as we know from other poisons that the first acts more violently than the second, and the second more violently than the third.

The worth of this pathonomonic was a forensic distinction for balanitis, urethritis, cervical catarrh, and other necessary examinations of servants and females. This knowledge of gonorrhœa served further as a guide for the application of medicine. The agent that will destroy the gonococci early without injuring the mucous membrane will be the drug most commendable. Dr. Steinschneider then related five cases of gonorrhœal vulvo-vaginitis and eighty-six cases of gonorrhœa in the male, with which he illustrated the utility of this diagnostic sign, which is performed by first coloring the microscopic preparation by Gram's method, and then coloring it a second time with Bismark's brown.

CANCER AND AGE IN ANIMALS.—An instructive monograph on tumors in the lower animals, by Dr. Plicque, appeared recently in the *Revue de Chirurgie*. Among the more interesting definite facts included in his paper are the subjects of melanosis and the relation of cancer to age. Melanosis, so malignant in man, is far nearer the innocent type of tumor in animals, especially in the horse. A melanotic nodule on a spot subject to irritation by harness sometimes disappears when the harness is adjusted so as to rub the new growth no longer. This phenomenon has even been observed after the growth has begun to ulcerate. Other tumors, especially sarcoma and carcinoma, are often more intensely malignant in animals, especially the horse, than in man. Animals protected by the resources of civilization, so as to live to an old age, rarely, if ever, met with in Nature, are especially subject to cancer. Indeed, Dr. Plicque finds distinct evidence that age is far more predisposing to cancer in beasts than in man. Bouley, a French veterinary authority of experience, believes, on the ground of long observation, that dogs are doomed to cancer if they live to old age and are not killed by some acute pulmonary or gastro-intestinal affection. The cat, often cherished and kept alive when old and miserable, is also very subject to cancer in age. Statistics show that cancer is far more frequent in the carnivora than in vegetable eaters. This statement, as Dr. Plicque is careful to explain, is liable to mislead the pathologist; indeed, it is a capital example of a statistical doctrine eminently calculated to deceive the thoughtless. For, if we only note what animals are mentioned above in this paragraph, the truth will become apparent. Old cats and dogs, carnivorous animals, are kept alive through a somewhat misguided philanthropy, or rather zoophily. But an old horse is seldom favored in this doubtful way, and cattle are killed, or ought to be killed, when they are young and tender. The herbivora have little chance of living long enough to have cancer.—*British Med. Journal.*

CURABILITY OF HEPATIC CIRRHOSIS.—The etiology of hepatic cirrhosis, if generally due to alcoholism or malarial infection, is still sometimes unknown. The most frequent cause is concentrated alcohol, most hurtful when taken on an empty stomach, as it is then most quickly absorbed. The veins which carry it from the stomach become irritated, and the irritation, extending from the portal veins, engenders an inflammatory process of the perivascular connective tissue, which, little by little, leads to hepatic sclerosis. As long as the hepatic lesion is limited to an embryonal neoformation, although extensive, Semmola affirms that a good result is to be hoped from a rigorous milk diet. When, however, the atrophic process has become completed, the advantage obtained from milk diet can only be palliative. Clinical symptoms do not always tell us with which stage we have to deal; ascites, not being only determined by a mechanical cause, may be great, while the cirrhosis is still curable. On the other hand, there are cases of cirrhosis with no ascites at all up to the end. As an aliment milk entails the least work for the stomach, satisfies the needs of the general nutrition. The irritated gastric mucous membrane is the first to feel the good effect, and this is propagated to the other parts of the digestive tract, with its annexes, liver, etc. Not only is milk easily digestible, but it furnishes peptones, which facilitate tissue change, and thus milk diet increases the quantity of urea eliminated in the 24 hours. In all these ways, and by increased diuresis, rigid milk diet tends to improve the morbid conditions proper to hepatic cirrhosis.—*London Med. Recorder.*

ENLARGEMENT OF THE STOMACH.—Professor Oser, in his lecture at the Poli Klinik this week, says that this is the age of the telegraph and the steam engine, which does not favor the stomach. The food is devoured with lightning speed, imperfectly masticated, and being unable to pass the pyloric opening for some time after entering the organ, is forced to remain there for some time, during which time the organ is contracting forcibly on the mouthfuls of food to break them down for further use. When this is repeated day by day the organ becomes enlarged, and ultimately incapable of making use of the easiest digested foods. No doubt, large quantities of food taken into the stomach will ultimately produce the same morbid change in the muscular wall of the organ, but this hurried bolting of the food, though taken in very moderate quantity, is even more injurious than the superfluous quantity, as it frets the pyloric orifice and soon produces a stenosis at that part of the alimentary canal. Another fruitful factor of enlargement of the organ would be found in the large amount of gas liberated by the food decomposing. This gas puts a greater tax on the contractile tissue, which soon becomes overworked and paralyzed, so that chemical as well as mechanical means may be accepted as a common source of the disorder.

There is another cause of enlargement that may even become endemic, when a large quantity of food requires to be taken owing to its unnutritious character, as, for example, in the case of vegetarians. If this vegetable food stuff be deficient in albumen a large quantity is necessarily taken in, but this extra labor of carrying forward undigested matter weakens and exhausts the physical energy, which soon becomes unfit to perform the function of digestion, allowing the ingesta to accumulate and distend the organ to an incredible size. This defect in food stuffs occurs in certain localities, and is more difficult to treat owing to its origin generally in needy districts.—*Med. Press and Circular.*

FATTY EMBOLISM.—Professor W. Th. Grube (*Vratch, Annals of Surgery*) says:

1. Fatty embolus may occur even as late as a fortnight after a traumatic injury.
2. Its sources are constituted not only by fractured bones, but also by crushed soft parts.
3. Hence, in all cases of extensive injuries to bones and soft parts, the patient's urine should be examined several times daily for at least three weeks after the accident.
4. In diagnostic regards, difficulty in breathing and fall of the temperature are especially important; the former is sometimes characterized by a series of sudden loud sneezings.
5. Excretion of fat through the kidneys is intermittent; hence, examinations of the urine may sometimes give negative results.
6. A diminution of fat in the patient's urine, and a simultaneous increase of difficulty in his breathing, point to growing danger.
7. To prevent fatty embolism, the injured limb must be kept in absolute rest (no massage, etc.). Any local cavities containing blood and fat should be incised and emptied.
8. Once developed, the embolism should be treated by cardiac tonics and diuretics (the latter are to be used in order to promote the excretion of fat through the kidneys).

GASTRO-ENTEROSTOMY. — Before the *Société de Chirurgie*, M. Monod gave an account of two cases of gastro-enterostomy practiced on patients suffering from cancer of the stomach. This operation, made for the first time by Wölfler, of Vienna, consisted in uniting a part of the small intestine as near as possible to the duodenum to the stomach. The result was satisfactory, and soon other attempts were made by Billroth, Kocher, Courvoisier, etc., but without success. Since then an assistant of Lücke took the matter in hand, and recently published eight cases with only one failure. MM. Gessen, of England, and Pozzi, of France, also contributed some cases. The operation, said M. Monod, is always long, lasting at least two hours, and attended with considerable danger, as the patients are generally aged and emaciated. When the operation is decided upon the choice between pylorectomy and gastro-enterectomy should be promptly made. One of the principal difficulties is that of choosing the suitable fold of the intestine, and the suture of the stomach to the bowel is very complicated, and the number of sutures very large, as much as 70 or 80 in some cases. As to the after consequences, in favorable cases, digestive troubles are frequent, and the fistula may act imperfectly, allowing the bile to flow in abundance into the stomach. However, in spite of the difficulties and complications the fate of those affected with cancer of the pylorus is so sad that the operation of gastro-enterostomy was justifiable in the same degree as tracheotomy for cancer of the larynx and artificial anus for scirrhus of the rectum.—*Med. Press and Circular.*

SIGNIFICANCE OF THE CREPITANT RALE.

[*The American Lancet.*]

Dr. F. W. Jackson (*Proceedings New York Acad. Med.*) remarks:

"There are differences in the definitions of the rale by various writers, but all practically follow either Laennec or Walshe. Laennec located the origin of the sound in the pulmonary cells, believing it due to the breaking of bubbles of air forming in a serous exudation, and so described it as a moist sound. Walshe described it as a dry crackling, comparable to the breaking of fine tissue, and probably produced when stiffened air cells were distended. Personally I believe both moist and dry crepitant rales occur, having noticed them sometimes in the same patient on different examinations. More recent foreign writers make it due to a variety of possible conditions (thus to the tearing loose of the walls of the vesicles from a fluid, beginning œdema of the lung, pleuritic adhesions, collapse of air vesicles, œdema of the pleura dependent on old lung disease, and the first stage of pulmonary apoplexy), as well as to the incipient stage of pneumonia. Dr. Leaming, in this country, sought to enforce the view that all rales were of pleuritic origin, basing his belief on the finding of fibrin on the pleura in cases where rales had been heard a few hours before death, and when the lung is completely solidified. He considers it a valuable sign of pneumonia and phthisis, but not as a positive indication of either. Dr. Loomis makes the crepitant rale due to pleuritis; Dr. Delafield to a friction sound; Dr. Roosevelt, a sound due most commonly, and perhaps always, to pleuritic rubbing, and occurring in pneumonia, phthisis, and dry pleurisy.

"A few observations are offered from a strictly clinical point of view. The crepitant rale, in my experience, is not always persistent; that is, it often disappears and then appears again, from moment to moment. The very fine and dry crackling rales, coming in a gust or shower, are but rarely heard. The crepitant rale is heard in dry pleurisy, in pneumonia, and in phthisis, and in no case can one tell by the rale alone whether the case is one of pneumonia or not. Many patients whose only symptoms are pain in the chest have crepitant rales, and this I believe to be due to dry pleurisy alone or to pleuritic adhesions. In œdema I believe the rale is subcrepitant of a very liquid character. These seem to me strong probability that the crepitant rale common to pneumonia, phthisis, and dry pleurisy is due to a pleuritic exudation.

"I conclude that the crepitant rale is not pathognomonic of pneumonia; that it is heard also in phthisis, in dry pleurisy, and in broncho-pneumonia; that there is a strong probability that it is almost always due to pleuritic inflammation; and that the question as to whether it is also heard in œdema of the lung and in pulmonary apoplexy is as yet unsettled."

SUTURES IN ABDOMINAL SECTION AND THE CÆSAREAN OPERATION.—After carefully sterilizing samples of carbolized gut, chromic gut, silk, and silkworm gut, of similar thickness, Dr. Thomson (*Centralb. für Gynäk.*) made use of these materials in the following manner: Rabbits, cats, and dogs that had just given birth to young were selected, and an incision was made in the cornu of the uterus on each side in each case. The incision was closed by suture, different material being used on opposite cornua. Sutures were also applied to the omentum and abdominal wound, in order to ascertain if they were there subject to more or less rapid changes than the sutures in recently pregnant uterine tissue. No difference could, however, be detected in this respect. The animals subjected to experiment were killed at different intervals of time, the sutures being carefully inspected. The carbolized catgut sutures were found to be very thin in the subjects killed at the end of a week, and reduced to mere relics in the neighborhood of the knots at the end of ten days. Chromic gut remained absolutely unaltered even at the termination of sixty-four days. The cut ends were more or less covered in by membrane. Silk ligatures were found loosened, yet entire, at the end of fourteen days. Nothing but scanty relics of this material remained at the end of sixty-four days. At the termination of the same period silkworm gut was found absolutely unchanged, the still sharp-cut ends of the sutures made of this material projecting freely into the peritoneal cavity. Dr. Thomson conclude that silk is the best and safest material fo suture, particularly for the uterine wound in Cæsarean section. Chromic and silkworm gut, as well as silver, are bad materials, as they never undergo absorption; whilst, on the other hand, carbolized gut becomes absorbed too early.—*London Med. Recorder.*

Pregnancy and Abdominal Tumors.—This subject is of equal importance to the practitioner and to the surgeon. Though the medical profession is better educated, and patients perhaps less reticent and less ignorant than formerly, error in diagnosis of abdominal swellings is still far from unfrequent. The overlooking of pregnancy is most likely to occur when a large tumor exists and is examined early in gestation, the patient concealing the fact, or being deceived by recent uterine hemorrhage taken for menstruation. The cursory examination of a single woman who denies pregnancy is a fertile source of error. Lastly multiparæ often ignore late pregnancies till gestation is far advanced, some of the symptoms which they experienced in earlier labors being suppressed. Dr. A. Van der Veer, of Albany, read a paper last month on "Concealed Pregnancy and its Relations to Abdominal Surgery" at the last annual meeting of the American Medical Association. He tabulated with great care seventy cases of abdominal section in which pregnancy existed as a complication not diagnosed. It was observed that the most eminent operators, as well as those of few opportunities, had made the same error relative to pregnancy. With the zeal for full and accurate reference which so distinguishes American medical writers, Dr. Van der Veer has not only searched the great library of the United States Surgeon-General's office, but dispatched several hundred letters to surgeons interested in the recorded cases, in order to gain as full details of every case as possible. Among other conclusions, Dr. Van der Veer is convinced that errors of diagnosis frequently depend upon conditions which make it absolutely impossible to avoid the same diagnostic conclusions should the same conditions recur in other cases. *Caveat operator!*—*British Medical Journal.*

Phthisis treated by Intra-pulmonary Injections.—Up to the present time, Bullard (*Boston Med. and Surg. Jour.*) has treated five cases of pulmonary disease by intra-pulmonary injections. In the first case there were loud bubbling rales, high-pitched bronchial respiration, and the ordinary signs of a cavity with fever, night-sweat, and profuse expectoration. The local physical signs, as well as the general condition of the patient, improved greatly as soon as the intra-pulmonary treatment was commenced. Within forty-eight hours after the first injection the very loud, coarse, bubbling rales had disappeared, being replaced by finer subcrepitant rales, and the respiration was lower in pitch and less bronchial in character. After several injections the subcrepitant rales became much less numerous, and finally disappeared to a great extent. Another patient was in an advanced stage of tubercular phthisis, and an injection was made in the neighborhood of a supposed cavity, in the hope of relief rather than cure. This hope was justified, and the patient was much more comfortable after the injection than he had been previously, the amount of sputa diminishing and the general condition being bettered, but the progress of the disease was not hindered, nor even probably delayed. The physical signs were, however, not materially changed. The author concludes that there are clearly many cases in which this mode of treatment may be safely and easily applied, with the effect of diminishing the symptoms of active disease, of benefiting the patient's condition, and of prolonging and possibly saving life.—*London Med. Recorder.*

Laryngeal Phthisis—Its Curability.—Dr. John Sedziak (*Journal of Laryngology*, June, 1889) says:

1. The curability of laryngeal tuberculosis, from both anatomical and clinical standpoints, must be considered as positively proved.

2. The recovery from laryngeal phthisis is, however, a rare phenomenon. In most cases a relapse of the laryngeal disease takes place, usually in connection with deterioration of general health and the pulmonary process.

3. The partial recovery of the laryngeal tuberculosis—viz., cicatrization of single ulcers, is a relatively frequent phenomenon.

4. On this frequency the lately improved method of local treatment of laryngeal phthisis has had great influence.

5. Certain micro-organisms possess re-

actionary power in a great degree—viz., resistance to pathological causes (tubercle bacilli), showing probably the tendency of the organisms to the production of connective tissue in all organs (lungs, larynx).

THE PROPHYLAXIS OF TUBERCLE.—At a medical meeting of one of the Association branches held at Stralsund, Prof. Mœsler read a paper on the prophylaxis of tubercle. He said that it was almost universally admitted that tubercle was as infectious as typhoid fever, that the sputa of the tuberculous was as virulent as the stool of the typhoid. From Koch's and Cornet's experiments with the tubercular bacilli, the sputa after it has dried and is converted into dust is the greatest danger, as it enters the lung of the healthy and commences the destructive work. On this account the sputa should not be put out on handkerchiefs, in spittoons, or on the floor, where it would be allowed to dry and get into the air again. To accommodate the tuberculous he recommends Dr. Dettweiler's handsome and scientific "Spuckglas" or "Spucknapf." This is an elegantly fitted up pocket spittoon, about the size of the fist, and very much resembling a fancy snuffbox. It is to be feared that the tuberculous will require some pressure applied before they are habited or even persuaded to use the pocket spittoon. He said that our lecture rooms, corridors, waiting-rooms, and much-frequented corners should be supplied with these enamelled safeguards against the infection of sputa, after the fashion of Cornet in Falkenstein.—*Medical Press and Circular.*

CYSTITIS IN WOMEN.—Dr. Thomas More Madden, of Dublin, treats severe cystitis in women by dilatation of the urethra. This permits a continuous outflow of the secretions. In many cases, this treatment, together with mild washing of the bladder, effect a speedy cure. If not, the fundus and neck of the bladder should be wiped off with a tampon of cotton soaked in carbolized glycerine and inserted through the dilated urethra. The use of cocaine will relieve all pain caused by this operation.—*Med. and Surg. Reporter.*

PRINTING.—The LANCET-CLINIC office receives orders for all kinds of printing.

THE TREATMENT OF INSOMNIA.

[*Med. Press and Circular.*]

At the meeting of the Society for Medicine of July 1, Herr Jastrowitz gave an address on this subject. He first spoke of the employment of alcohol in its various forms of wine, beer, and spirits. Alcohol was given as a narcotic in acute diseases in which it was desirable to use one that was not a cardiac depressant. Alcohol was first a cardiac whip, and then when the stimulant action had passed off a "somniferum." In chronic insomnia from cerebral disturbance it was a well-known prescription to make patients work hard or run fast, and then give them some strong beer. But even if alcohol was useful in furthering sleep, in melancholics the dread and nervous excitement were often made worse the following morning.

As regarded opium and morphia, it was a noteworthy fact that G. Mayer, of Achen, considered them first as sedatives, and hypnotics only in large doses. A third property, that of a tonic, was very valuable. Persons who had become accustomed to take other hypnotics, after taking opium and morphia thought that the sleep following these was the most natural. These were indispensable sedatives in such diseases as cancer and tabes. It might be disputed that morphia was a tonic, but the experiences of sportsmen on themselves and their horses showed that after injection of morphia they were able to accomplish greater feats than without. The effect of morphia in stenocardia, angina pectoris, and feeling of dread from deficiency of tone in the medulla oblongata, were mentioned. In congestion of the chest great caution must be used with morphia as well as in diseases of the heart, as both paralyze the heart. These drugs must be used with great caution in chronic insomnia, for fear of setting up a dangerous and intractable morphia habit. Small doses only should be given to children in whooping-cough, and bromide of potassium substituted where it could be done. In senile insomnia opium acted better than morphia; was superior also in intestinal diseases and in certain forms of melancholia and mania. He had used it gladly in delirium tremens. Codein and narcein were the only other alkaloids from opium in use. Both caused less constipation, and were fairly good hypnotics. In Russia and France codein was much used in bronchitis, and Lauder Brunton recommended it in abdominal pains. Narcein was much used in France for children. Chloral hydrate had the advantage of being the most powerful of all hypnotics. It never failed. Danger from it naturally increased with the dose. A large dose of chloral produced a condition resembling chloroform narcosis, which lasted till natural sleep followed. It was contra-indicated in cases where the lungs showed great obstacles to respiration, and where the stage of excitation was very short, especially where there was no contraction of the pupils. He had in 1869 recommended a mixture of chloral and morphia; it had advantages, but it should never be given in large doses. Paraldehyde did not depress the heart. Large doses produced a condition resembling chronic alcoholism. It was not very dangerous. Patients quickly got accustomed to it, and the dose had to be increased. It was not suitable in bronchial irritations, but in affections accompanied by cutaneous itching it was very efficacious. It was not very useful in conditions of great excitement and dread, but in insomnia from "moral" causes it was. Hydrate of amyl had the fate to be quickly overtaken by sulphonal, but it was a good hypnotic in doses of 0.8 to 1 gramme.

Sulphonal was distinguished by its odorlessness and tastelessness, so that it could easily be given to unwilling patients. All observers were agreed that it did not act on the heart. The action was very slow, so that it was not so suitable for acute affections. It did not relieve pain, but it was unreplaceable in cases distinguished by motor restlessness, such as chorea. In mania it was best to give 0.5 to 1 gramme during the day and another dose in the evening. After long-continued use the patients suffered from giddiness, so that they staggered in their walk. Patients declared that they felt stupid; they could not move their arms or legs properly. These symptoms disappeared when the medicine was stopped. Urethran, methylal and hypnon, from their being unsafe or unreliable, had fallen into disuse. All comparison of these drugs was possible only to a slight extent. The sleep after sulphonal was most like natural. With long continuance it was not without its effect upon the heart.

ON DISEASES OF THE MASTOID PROCESS.

By Adolf Bronner, M.D.

[*Med. Press and Circular.*]

Diseases of the mastoid process are, as we all know, very rarely of primary origin, and are in most cases secondary, and caused by diseases of the external meatus or middle ear. This we can readily understand, if we consider, that the periosteum of the external meatus, and that of the mastoid process is directly continuous, as also is the mucous membrane of the tympanum, and that of the mastoid antrum and cells. Roughly speaking, we can divide the diseases of the mastoid process into: periostitis; catarrh and empyema of the mastoid cells; sclerosis; caries and necrosis. Periostitis can be caused by diseases of the external meatus or of the middle ear, or it can accompany caries of the mastoid process. The fact that in many cases the squamous-mastoid fissure, which in infants separates the squamous and mastoid parts of the temporal bone, remains open in adults, explains the frequent occurrence of periostitis of the mastoid process following simple catarrh of the middle ear, and without any febrile or con-constitutional symptoms. Kirchner drew attention to this very important fact in the *Archiv. für Ohrenheilkunde*, xii, p. 190.

Simple periostitis can often be cut short by the use of Leiter's coil or ice. Of course, if there be much pus we make Wilde's incision. As we can, however, never be sure if it be a case of simple periostitis, or if it be not complicated by caries of the mastoid process, we ought never to be satisfied with the simple incision, but ought also to carefully examine the periosteum, remove it and examine the osseous tissue, to see if we cannot detect any signs of caries.

Catarrh and empyema of the mastoid cells are nearly always secondary to diseases of the middle ear. On careful examination we find that in most cases of acute disease of the middle ear, the patient complains of pain over the mastoid process, and very often there is distinct swelling there. The inflammation of the mastoid cells very frequently becomes chronic or progresses, or gives rise to the so-called cholesteatoma or goes over it into caries or necrosis.

In many of these cases the only symptom we often have of chronic affection of the mastoid cells is a suppurative otitis media, which persists in spite of all local treatment. We thus find that chronic otorrhœa is a very dangerous symptom, as being a sign of inflammatory changes going on in the mastoid cells. In my opinion, therefore, chronic otorrhœa, which persists in spite of all local treatment, is one of the indications for opening the mastoid antrum. In late years it has been proved that the so-called cholesteatoma of the middle ear is in most cases no definite tumor at all, but nothing more or less than the result of chronic proliferation of the mucous membrane of the mastoid cells. The only treatment in these cases is naturally to open the mastoid antrum and syringe out the cholesteatoma.

Empyema of the mastoid cells so often goes over into caries and necrosis, that it is in many cases quite impossible to distinguish between these affections. Caries is naturally the result of a chronic inflammatory process, and is usually accompanied by extensive destruction of the osseous tissue. In scrofulous and tubercular subjects nearly every case of chronic otorrhœa is caused by caries of the mastoid process. It is to these cases to which I should particularly like to draw your attention, as they seem to me to be of the greatest importance. This caries of the mastoid process, so often overlooked or ignored, can at any moment give rise to local or general tuberculosis, and as a matter of fact very often does do so. If the caries spread, which it does in most cases, it may find its way outwards or into the cranial cavity. In the former case we usually find a local mastoid abscess. This in most cases remains stationary, but often spreads down the deep cervical tissues and its way into the pleura or pericardium, or, as in some recorded cases, into the axilla or under the scapula. The most dangerous complications are the intra-cranial affections. We can either get cerebral abscess, or phlebitis of the lateral sinus, or meningitis. This latter important question will be one of the subjects for discussion at the Otological Section of the Leeds meeting of the British Medical Association, and will no doubt be watched with great interest not only by otologists, but by all surgeons and physicians.

Kœrner, of Frankfort, has lately drawn attention to the very interesting fact that diseases of the right mastoid process are more liable to cause intra-cranial mischief than those of the left process (*Archiv. für Ohrenheilkunde*, xxii, p. 126). Of 151 post-mortem cases of intra-cranial affections following ear diseases, the right ear was affected in 90 cases and the left in 57; this he tries to explain by the fact that the right lateral sinus lies deeper and more forward than the left, and that the layer of bone between it and the ear is therefore thinner than that on the left side, and thus more liable to be perforated by pus.

Duckworth has recently (*Lancet*, January 5, 1889), drawn attention to the frequent occurrence of pyæmia following chronic otorrhœa. Of five recorded cases three proved fatal. Szenes also published several cases (*Deutsches Archiv. f. Klinische Medizine*, December, 1889). In all cases, therefore, of chronic otorrhœa, in which proper treatment has failed, especially in tubercular subjects, and in all cases of mastoid fistula or recurrent mastoid abscess, we ought to cut down on the mastoid process, remove the periosteum and look for any carious bone, and in nearly every case we shall be sure to find some. If this rule were more carefully carried out we should not see so many people afflicted with chronic otorrhœa, and a large number of valuable lives would be saved every year. The more cases you see the more you become impressed with the important fact that very extensive changes may be going on in the mastoid process, without any marked symptoms whatever, except otorrhœa or mastoid fistula. You very frequently see cases with mastoid fistula or chronic otorrhœa, with no other symptoms whatever, in which the patients simply laugh at you if you tell them how very dangerous their affection is, and then, when you operate, you find the mastoid process filled with hard offensive pus, ready at any moment to cause intra-cranial trouble or call forth pyæmia or tuberculosis.

As regards the surgical treatment of mastoid diseases, we can either make Wilde's incision or open the mastoid antrum, or only open the superficial mastoid cells. Of course, in all cases accompanied by cerebral symptoms we must at once open the antrum. In cases where there is a mastoid fistula we should cut down on to the bone, follow up the fistula, enlarge it and, if necessary, open the antrum and syringe out. Even if there be no fistula we ought never to be satisfied with Wilde's incision, but ought in every case to carefully examine the periosteum, remove it, and examine the bone.

I prefer the chisel to the trephine or any other instrument. With the chisel you can enlarge any fistula you may find, and follow it up much more readily than with the trephine; you can easily remove any carious or necrotic bone, and what is of vast importance, you can at once notice if you wound the lateral sinus. It is not always necessary to at once make for the mastoid antrum, as most people seem to think; you simply do what any surgeon would do in operating for caries of any other bone. You cut down on the diseased bone, remove the affected parts with a chisel or sharp spoon, and follow them up until you come to sound tissue. Of course, in most cases, you thus open the mastoid antrum, but by no means in all.

If there be no fistula or carious bone to guide you, you remove the periosteum, and make an opening with the chisel at the well-known spot, just behind the external meatus, and on a level with its upper wall, taking care to cut downwards, forwards, and inwards. * * *

The facts to which I should like to draw attention in this very incomplete paper are:

(1) That very extensive and dangerous changes may be going on in the mastoid process without any well-marked symptoms.

(2) That affections of the mastoid process very frequently, much more frequently than is generally supposed, give rise to intra-cranial inflammation, pyæmia, general or local tuberculosis.

(3) That we ought in all chronic cases never to be satisfied with Wilde's incision, but ought to carefully examine the periosteum and osseous tissue of the mastoid process.

(4) That the chisel is the most useful and effective instrument for operating on the mastoid process.

(5) That the mastoid process ought to be operated on also in the following cases:

(*a*) In all cases of chronic otorrhœa in which local treatment has failed, especially in tubercular subjects, except in cases of perforation of Shrapnell's membrane.

(*b*) In all cases of fistula of the mastoid process.

(*c*) In all cases of recurrent mastoid abscess.

NASAL RESPIRATION.—Dr. E. Bloch (*Archives of Otology*) concludes a series of physiological investigations thus:

1. The temperature of the inspired air is considerably raised while passing through the nasal cavities.

2. The thermogenic action of the nasal mucous membrane is greater when the temperature of the external air is lower.

3. The thermogenic effect of the nasal mucous membrane is constant, depending on the relation of the external temperature to the temperature of the body.

4. Under normal conditions this relation is expressed by the formula $E=\frac{5}{9}(37-t)$.

5. The temperature of the expired air is 1.5°–2° C. higher after nasal respiration.

6. The thermogenic action of the buccal cavity is slight as compared to that of the nasal.

7. The heat given by the nasal mucous membrane at each ordinary inspiration, and at a moderate external temperature, is equivalent to 6 gramme calorics.

8. Inspired air passes out of the nose about ⅔ saturated.

9. The nasal mucous membrane retains the greater part of the solid particles which may be contained in the inspired air.

10. It does not, however, act as a perfect filter for dust.

11. The amount of dust retained depends principally upon the normal viscidity of the nasal mucosa; also on the weight, size, and hygroscopic condition of the solid particles inhaled.

12. During nasal respiration the tongue is pressed against the palate, and the mouth closed anteriorly and posteriorly, solely by the pressure of the external air.

13. Every considerable mechanical, chemical, or thermic stimulus, acting upon the nasal mucous membrane through the inspiratory air-current, induces an immediate cessation of the respiratory act.

14. This respiratory standstill is immediately succeeded by an inspiration.

15. It is probable that weak stimuli only retard inspiration; and it is possible that very strong stimuli induce an immediate expiratory movement.

THE PATHOLOGY OF RELAPSES.

[*Medical News.*]

The rapid advances in medicine so frequently necessitate changes in our previous theories, that they often excite but little notice. Recently our conception of the pathology of relapses, so exactly defined by Gerhardt some fifteen years ago, has been shown to need extension.

Gerhardt restricted the use of the word to those repetitions of a disease occurring after complete subsidence of the first attack but not longer thereafter than the recognized incubation-time of the disease. If the second attack occurred later than this it was thought in all cases to depend upon a new infection from without. The definiteness of this conception brought about its ready acceptance. Recently, however, it has come to be believed that specific micro-organisms may remain for a considerable time latent in some portion of the body, and that they may, at a much later time than Gerhardt's definition admits, gain access to the general system and occasion a "relapse" in the true sense of the term. This belief has been the outcome of the finding of specific micro-organisms in various lesions, described as sequelæ, a very considerable time after the subsidence of the initial disease. Thus A. Fraenkel obtained active typhoid fever bacilli from the pus of an abdominal abscess five months after the onset of the fever. Similar observations have this year been reported by Ebermaier and Valentini.

In the case of pneumonia parallel observations have been recorded, the specific germs having been found in the lesions of meningitis, otitis, pericarditis, peritonitis, etc., which occurred as sequelæ of pneumonia. To these an interesting case has lately been added by Senator (*Berliner klinische Wochenschrift*, 1889, No. 24, p. 536), in which a seventeen-year-old boy, after recovery from an ordinary attack of pneumonia, developed double median otitis, which persisted for nearly three months. During this time, on two occasions, there were attacks of erysipelatous redness of the face, which could only be attributed to infection from the inflamed ears. At the end of the three months symptoms of meningitis developed and the patient passed through a well-marked attack of that malady. During convalescence from this, *pneumonia* supervened and the erysipelatous redness of the face returned. Senator considers it proper to speak of this as a *relapse* of pneumonia, notwithstanding the long interval between the attacks, for he believes that the second attack cannot be attributed to new introduction of the infectious micro-organisms from without, but must be supposed to have been set up by specific micro-organisms existent during all that time in the aural lesion. That the second attack was not dependent upon any residual pulmonary condition after the first attack, was not thought possible, since the left lung was affected during the first attack, the right afterward.

The importance of cases of this kind, of which so many have recently been brought to light, cannot be overestimated as elucidating the dependence of complications and sequelæ upon the same exciting cause as the initial disease. The necessity for modification of our present ideas of the limitations of true relapses is also apparent.

Senator questions whether in another way, also, our conception of a relapse is not too limited. In the consideration of relapses of infectious diseases we rightly attribute greater weight to the exciting cause than to any constitutional or local predisposition which may remain after the first attack. But how are we to regard the repeated attacks of diseases not of infectious nature? Is it proper to speak of a relapse of gout or chorea? *Apropos* of this, not as answering the question, which he admits to be impossible in the present state of our knowledge, but as being a case in point, Senator cites a very curious case of chorea gravidarum, the details of which are given by W. Ruhemann ("Ueber Chorea gravidarum;" Inaug.-Dissert.; Berlin, 1889, p. 27). The patient, twenty-five years of age, who had been previously healthy, developed pronounced chorea, affecting the face and extremities, during the fifth month of her first pregnancy. The attack subsided with the birth of the child at term. A second pregnancy was passed through without disturbance. During the third, however, a return of the chorea occurred, so violent that premature delivery had to be resorted to. In such case should greater weight be laid upon the predisposition to repetition of the disease left from the first attack, or to the supposed exciting cause, pregnancy? It seems to Senator to depend upon the comparative importance attributed to one or the other of these factors, whether such repeated attacks should be spoken of as relapses or not.

Senator leaves the subject in an unsettled condition. The old Gerhardtian idea is shown to be too limited, but as yet it is impossible to propose a thoroughly satisfactory substitute.

CIRCUMSCRIBED ŒDEMA AND PAROXYSMAL HÆMOGLOBINURIA.—At the Dermatological Congress, Prague, Dr. Joseph referred to a case of this kind that had come under his notice, the details of which he purposed publishing later. The case was a boy five years of age, who two and a half years ago suffered from an acute circumscribed œdema of the skin, which attacked the surfaces exposed, as the face and the hands. After this time the swelling constantly repeated itself if he were exposed to cold or windy weather, but ten or fifteen minutes after his return to the house all disappeared. The boy is still subject to the slightest cold, the ears becoming quite frozen, while the lungs are constantly troubled with catarrhs. Last winter, however, a new symptom presented itself in the form of paroxysmal hæmoglobinuria. After an attack of shivering from cold feet the urine became loaded with hæmoglobin, which was tested chemically and microscopically. The boy was put to bed and caused to sweat. On the following day he was quite well again. Another interesting feature is the mother's information that she had given him daily for the last year one glass, sometimes more, of "*Tokayer.*" Dr. Joseph then referred to the experiments of Rosenbach, Küstner, Lichtheim, and others on the production of hæmoglobin, but would like to have a careful clinical inquiry how the skin complication was coincident. In connection with this case he related another under his own care. This was a young man thirty-eight years old. Four years ago an acute œdematous swelling of the skin appeared, which repeats itself. The cause in this case seems to be alcohol, as he drinks to excess, and when the drinking is stopped the œdema disappears. The alcohol he has used has been analyzed, but no ingredient seems in excess, as fusel oil was suspected. Yet whenever he returns to his potations the œdema reappears.—*Med. Press and Circular.*

EXAMINATION OF THE GASTRIC SECRETION.—Dr. Jürgensen of Copenhagen has published a contribution to the question discussed by Ewald of Berlin and Riegel of Breslau, as to whether it is better in the cases of disordered digestion to examine the contents of the stomach after breakfast or after dinner. His experiments on twenty-one patients after both meals showed that the difference of the results obtained is neither so clear nor so important as to enable one to conclude that either of the two meals is distinctly the better for experimental purposes. He prefers to conduct the examination after breakfast, but merely because it is more convenient both for physician and patient. Dr. Jürgensen's deductions from his own experiments have been criticised in a German medical journal, which holds that they point to more reliable results being given after dinner than after breakfast. He found in sixteen experiments in twelve cases of excessive acidity (three being cases of gastric ulcer) that the total acidity after dinner increased in fourteen cases, and decreased in only two, in both of which there was rather an excess of acidity after breakfast. In three cases there was absence of acidity and nervousness after breakfast, and total absence of acidity after dinner. In eight experiments in six cases of chronic gastritis the acidity was twice absent, three times decreased and twice very slightly increased after dinner, while after breakfast there was less than the normal acidity, and in one case there was absence of acidity after both meals. These experiments seem to prove that in nineteen cases dinner brought into prominence the morbid functions of the stomach, while breakfast showed this result only four times.—*Lancet.*

THE EFFECT OF CONTINENCE ON ADULTS.—Dr. Brown-Séquard says: "It is known that well-organized men, especially from twenty to thirty-five years of age, who remain absolutely free from sexual intercourse or any other causes of expenditure of seminal fluid, are in a state of excitement, giving them a great, although abnormal, physical and mental activity.—*Med. Record.*

MEDICO-LEGAL ASPECTS OF CONCUSSION OF THE SPINE.

By H. H. Smith, M.D.

[*Medical Record.*]

The legal liability of corporations and capitalists for claims of pecuniary damages for injuries received by individuals through a claimed negligence, was established by the English Parliament, in 1846, and is known as Lord Campbell's Liability Act.

A refusal to pay, often carries the claim into court, and the medical testimony often becomes the turning-point of the case. A medical expert should, therefore, endeavor to hold the scales so level that the preponderance of the medical facts may correctly incline the balance to the right side. The following questions were presented:

1. Can any force be so applied as to produce concussion of the spinal cord and its nerves?

2. How are the normal functions of the cord disturbed by such injuries?

3. What pathological changes in the cord are found as due to its injury or disease? After answering these questions, the following conclusions were drawn:

1. Concussion of the spinal cord is no longer doubtful, but may occur from any marked violence, there being nothing peculiar in the application of force to the body as the result of railway derailment or collision.

2. The pathological changes noted in the molecular structure of the cord, as the result of shaking, etc., when attended by paralysis in any degree, may be due to hæmorrhagic effusions, softening, and localized or limited atrophy.

3. The possibility of pre-existing neurasthenia, hysteria, or fraud, should be carefully noted in forming a diagnosis.

4. The prognosis should be guarded, especially in cases claiming permanent disability, as recoveries or marked improvement in a few weeks, are recorded even after the occurrence of paralysis.

5. No physician should go into court and swear that a plaintiff has had a concussion of the spine or its nerves, unless he has proved the disturbance of the normal functions of the cord as shown in sensation or motion, or both, and that the symptoms appeared soon after the injury.

Dr. Herbert Judd, of Galesburg, Ill., following Dr. Smith, said: It is demanded by the honest business interests of the country, by cities, by transportation, mining and manufacturing companies, and by all employers of laborers, that the subject of spinal concussion receive the most thorough attention at our hands. If we do not expose the cheats and frauds, and protect the deserving claimant, who can do so? That cities and corporations are robbed of vast sums of money yearly by malingerers, aided by ignorant or dishonest surgeons, we all know to be true. This subject has reached this disagreeable status: A person can claim to be injured in a collision of trains, or by other accident. No objective symptoms or signs can be discovered, nor, upon close examination, found. Nevertheless, such persons never fail to find abundant medical testimony, and the assistance of friends, which, with the required legal talent, will be sufficient to successfully prosecute a suit. Especially is this true when the defendant is a corporation. Such cases can be, and are, based upon and carried to the end upon only a few vague subjective symptoms, every one of which depends alone upon the word of the claimant who seeks damages.

It is said, and it is probably true, that more people are injured every year by riding in carriages and by farm-work than by railroads, yet injuries that are pure accident, or injuries where a corporation of some character is not at fault, never result in concussion of the spinal cord. And where injuries occur through accident for which no liability can attach, we find no malingerers.

Amyloid Degeneration of the Pancreas.—At a recent meeting of the Kazan Medical Society, Dr. A. I. Podbelsky read an interesting paper on amyloid degeneration of the pancreas, in which he drew attention to the fact that the morbid lesion is by no means uncommon. Having lately made 122 consecutive necropsies (in 71 chronic and 51 acute affections), he found degeneration of the gland in 12 (9.83 per cent.). Among the cases were 6 men and 6 women, aged mostly from forty to fifty. Most frequently it accompanied tuberculosis (in 40 per cent of all cases of the disease), and somewhat less so in syphilis. Waxy degeneration of other organs was found in 25 out of the 122 cases. Macroscopically the gland was always more or less anæmic. In cases where the amyloid degeneration was well advanced, or where it was complicated with cirrhosis, the consistency of the gland was distinctly increased, while in the presence of but relatively slight waxy changes, combined with intense fatty degeneration, the organ was rather soft. Its weight was invariably found to be augmented in comparison with the standard. The same held good in regard to the dimensions of the viscus, except in two cases complicated with cirrhosis and atrophy. Under the microscope the degeneration was found to affect the walls of the arteries and periacinar capillaries, the membrana propria and fibres of the interlobular connective tissue. Fatty degeneration of the secretory cells and Renaut's *points folliculaires* was always present. Dr. Podbelsky believes that the disease may be diagnosed, with probability during life, provided any new growths of the organ or obstruction of its duct can be excluded, from a chemical analysis of the patient's feces with regard to fats and starchy matters.

Treatment of Alopecia Præmatura.—Dr. Oscar Lassar has contributed to the *Therapeutische Monatshefte* an interesting paper on the nature and treatment of alopecia (præmatura) furfuracea. This, the commonest form of baldness, is, according to the author, extremely contagious, and can be experimentally communicated from man to the lower animals, while every day it is unconsciously being spread widely among the general population. No specific organism has as yet been isolated, but a number of cases are given to prove the contagious nature of the disease. The following treatment is recommended as being efficacious in most cases: The hair is washed daily with tar or other soap for ten or fifteen minutes, after which the soap is carefully removed with abundance of water. It is then rubbed with the following lotions: (1) Hydrargyri perchloridum (½ per cent. solution) 150 parts, glycerine and eau-de-cologne of each 50 parts; (2) *B*-naphthol 1 part, absolute alcohol 200 parts. After careful drying, the following pomade is to be used: Acid salicylic 2 parts, tincture of benzoin 3 parts, olive oil up to 100 parts. The cure may take six weeks or longer, and careful prophylaxis with regard to brushes and combs must be carried out.—*British Med. Journal.*

Miscellany.

MEDICAL HUMOR.

Collated from various sources by T. C. M.

Edison's Latest Fad.—Edison is putting his phonograph to an entirely new use. They have a new babe at their house, and he proposes to devote an instrument to the recording of her crowing, her cries, screams, her first attempts at speech, and her funny sayings. "Then," he says, "I shall preserve this record until she becomes a young lady, and then it can be operated for her benefit, and she can see for herself just what kind of a baby she was without taking the mother's or nurse's words for it." Certainly there is something new under the sun, and Edison is the inventor of it. But if he would only invent an instantaneous photographic attachment by means of which the instrument would reproduce a photograph of the exact appearance of the babe at the moment of the production of each of the sounds, then she could certainly depend upon this wonderful instrument to reproduce her self to herself in a manner and with accuracy not heretofore conceived of.—*Chicago Medical Times.*

* * *

"There's no Harm Done."—The following song is said by the *Hospital Gazette* to be popular just now among medical students of Dublin and London. There is a good deal of a moral in the lines:

I extracted the wrong tooth but there's no harm done;
I like to tell the truth, when there's no harm done.
The patient never knew if I pulled one tooth or two,
And he still has got a few, so there's no harm done.

I once made a patient lame, but there's no harm done,
And he'll never be the same, but there's no harm done.
He thinks it was his fate that he took advice too late,
For a train he's often late, but there's no harm done.

I put out a patient's eye, but there's no harm done;
He thinks it was the fly, so there's no harm done.

In place of Atropin I dropped in Winter Green,
But, of course, it wasn't seen, so there's no harm
done.

Once I gave too big a dose, but there's no harm
done;
I request you'll keep it close, but there's no harm
done,
Up the medicine he threw, or shouldn't I look
blue,
What I tell you is quite true, but there's no harm
done.

* * *

ANATOMICAL EPITAPH ON AN INVALID.

Here lies a head that often aked,
Here lie two hands that always shaked,
Here lies a brain of odd conceit,
Here lies a heart that often beat,
Here lie two eyes that daily wept
And in the night but seldom slept;
Here lies a tongue that whining talked,
Here lie two feet that feebly walked,
Here lie the midriff and the breast
With loads of indigestion pressed;
Here lies the liver, full of bile,
That ne'er secreted proper chyle;
Here lie the bowels, human tripes
Tortured with wind and twisting gripes;
Here lies that livid dab, the spleen,
The source of life's sad tragic scene,
That left-side weight that clogs the blood
And stagnates nature's circling flood;
Here lie the nerves, so often twitched
With painful cramps and poignant stitch;
Here lies the back, oft racked with pains,
Corroding kidneys, loins and reins;
Here lies the skin by scurvy fed
With pimples and eruptions red.
Here lies the man, from top to toe,
That fabric framed for pain and woe;
He catched a cold, but colder death
Compressed his lungs and stopped his breath;
The organs could no longer go
Because the bellows ceased to blow.

—*Annual Register*, London, 1768.

* * *

PHYSICIAN AND MARINE ARTIST.—Two strangers were talking on the cars and one was a portrait painter. After some time the other inquired the painter's business.

"I am an artist," he replied, modestly.

"Ah," said the other, "what do you draw?"

"Faces."

"And I am an artist and physician, too," said the other.

"Ah," remarked the painter with a smile, "may I ask what you draw?"

"Water—with a catheter," answered the medical man.

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THE

CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, August 24, 1889. *WHOLE VOLUME LXII.*

Original Articles.

THE INFLUENCE OF THE TRADE WINDS ON THE HEALTH OF THE WORLD.

A Paper read before the Cincinnati Society of Natural History, June 4, 1889,

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We live upon the ocean-bed of a mighty sea, whose circling waves and seething currents stretch over us and above us to the heighth of forty-five miles! As this is the element in which we live, move and have our being, perhaps it is well that we should for a few brief moments consider its properties and its relations to us. It is truly the breath of life, for of all the wants known to the human system no one is so necessary and so imperative as fresh air.

The air we breathe is composed of oxygen, nitrogen, carbonic acid and watery vapor. The first forms about one-fifth, the second almost four-fifths, the third about four parts in 10,000, and the last a variable amount.

Oxygen is the life of the animal world and carbonic acid that of the vegetable world. Animal life demands oxygen and throws off carbonic acid. If there were no plants on the face of the earth to absorb the carbonic acid, animal life would soon perish, and although nitrogen is of a negative character, neither supporting nor destroying life, yet we cannot live without it, for if it were not for its presence in the atmosphere the oxygen would be too active and life would become excited to a feverish pitch and sweep through its course in a few weeks or months at the furthest. The watery vapor is indispensable to life, for if it were absent our flesh would shrivel up like that of a mummy, and the trees and the grass and the plants and the beautiful and fragrant flowers would wither away as if blasted by the breath of a furnace.

The health of the world depends upon the amount and the temperature of the moisture in the air. In order to study the distribution of the rain we must take into account the movements of the atmosphere, the geographical peculiarities of the surface of the earth, and the annual and diurnal variations of the thermometer.

If we knew only the winds that blow in our temperate regions, we should almost despair of arriving at a knowledge of any law regulating their course. Whence they come and whither they goeth no man knoweth. They change their force, their direction and their temperature without apparent cause, and are inaccessible to our means of observation. They are the very symbols of changableness itself.

But it is not so when we enter upon the equatorial seas, where from one end of the year to the other a gentle and regular wind blows from the east to the west with great constancy, and carries slowly and without violence the ships from the coasts of the old world to those of the new; these are the *trade winds*, so called because of the help they give to the commerce of the seas. We know of the astonishment and alarm of the companions of Columbus on noticing these winds, the constant direction of which, being toward the west, seemed to render their return impossible. In the Indian seas the wind blows six months from the northeast and six months from the southwest. These are the monsoons.

The trade winds occupy a zone of sixty degrees in breadth — that is, from 30° north to 30° south—and beyond these limits are the variable winds and return currents. Now, these winds are the agents which transport the equable temperature of the ocean and the moisture exhaled from its surface to the interior of the great continents, where it is precipitated in the form of dew, rain or snow. Mountains receive the moisture that floats in the atmosphere; they obstruct and lift the aerial currents, and by causing a reduction of temperature favor precipitation, for let us not forget as we go along the well-known fact that the capacity of the air for holding water becomes less and less as it grows cooler and cooler, until finally it arrives at a point where it is almost devoid of aqueous vapor. Rain accordingly falls most abundantly on elevated lands.

Let us consider the effect of a great mountain wall like the Andes. In the region within the 30th parallel south the moisture swept up by the trade winds from the Atlantic will be precipitated in part upon the mountains of Brazil, which are low and so distributed as to extend far into the interior. The portion that remains will be borne westward, and, losing a little as it proceeds, will be arrested by the Andes and fall down in showers upon its slopes. The aerial current will now be deprived of all the humidity with which it can part, and will arrive in Peru in a state of almost complete dryness, where no rain will consequently fall.

This condition of affairs goes on all over the world. It is not necessary for a range of mountains to be lofty in order to deprive a wind of its moisture. In India there is a chain known as the Ghauts, only 3,000 or 4,000 feet high, which divide summer from winter, as it is called. They have copious rains on the windward side while on the other the weather remains clear and dry, and the rains regularly change from the west side to the east side, and *vice versa* with the monsoons.

Passing on to speak of the climate of North America, we find that the western coast of Mexico, as far as St. Blas or Mazatlan, is humid because the mountains are not high enough to intercept or turn aside the winds from the east. The north-western part of Mexico is very dry. Sonora consists of sandy plains without herbage, where the streams lose themselves in the parched lands without reaching the sea; and even Lower California, which has an ocean on one side and a broad gulf on the other, and ought to be excessively seasonable, is covered with sterile rocks and sandy hills, where vegetation is scanty and no timber seen but brush-wood. This dry region extends right up the Pacific coast as far as the 34th or 35th parallel of north latitude, when all at once there is a change of scene, owing to the return current of the trade winds. Instead of burning sands and melancholy wastes as are found in Southern California, and where irrigation has to be employed for the bringing forth of scanty crops in the narrow valleys, we find a humid atmosphere, luxuriant forests, rich and fertile lands, and teeming pastures covered with thousands of domestic animals whose fine conditions speak eloquently of the kindly care and native riches of Mother Nature.

This state of things we find on the western slopes of the Rocky Mountains, but in passing over to the eastern side we find for the distance of 3,000 miles along the foot of this chain that the surface consists of dry sands or gravel almost destitute of trees and herbiage, with here and there a sickly stream which soon disappears in the arid soil and leaves us wondering why such forbidden tracts of country are ever created to offend and sadden the eye of man! The mountain wall, extending from the line of Old Mexico northward to the British possessions, has shut off the moist winds of the Pacific, and that is all there is in it.

The great Mississippi Valley would have been equally barren and unproductive had a range of mountains extended along our southern coast and thus shut off the Atlantic trade winds, which here having a northward trend and being deflected to the right, ascends the valleys of the Mississippi, and this bearing upon its wings the humidity of the Torrid zone, scattering fertility over a wide region.

The Pacific is the most oceanic of all the great bodies of water, the Atlantic the most maritime, and the Indian the most mediterranean. The winds of the Indian Ocean experience still greater perturbations than those of the other two oceans of the tropics, for it is really half a sea and half a gulf—surrounded and hedged in by the vast table-lands of Asia, Africa and Australia. By studying the map carefully it will be seen that the unequal heating of the atmosphere is caused by the passage of the sun from the extremes of winter to those of summer. While Africa, south of the equator, receives the vertical rays of the southern sun in December, January and February, Southern Asia, on the north of the equator, and the neighboring seas, are feeling the low temperatures of winter. The air rushes in from the colder regions of the Indias and of upper Asia towards the warmer regions of Southern Africa. The reverse takes place when India and Asia are heated by the burning sun of the northern summer, and when Africa is cooled by the southern winter, for the air always blows where the temperature is more elevated. Here we see the causes that underlie the monsoons—so-called from the Arctic word *Moussin*, signifying season.

The trade winds suck up the water from the seas and pour it in immense quantities upon the land. The average of the rainfall of the tropics of the old world is 77 inches and 115 in tropical America. At Paramaribo in Dutch Guiana it amounts to 229 inches or 19 feet. Many parts of Brazil run as high as 276 inches or 23 feet. In the Western Ghauts, south of Bombay, at the height of 4,200 feet, it has been known to rise to the enormous number of 302 inches, or a little more than 25 feet. These results are the more astonishing, as all this water falls in the space of a few months, and is not distributed over the whole year as might be inferred. It has been known to fall 21 inches at Cayenne in a single day, which is nearly as much as falls during the whole of the four seasons in the northern latitudes. Conceive but for one moment the effect of such a state of things here in Ohio. A rainfall of one foot would cause a flood that would sweep away every town in this valley and depopulate the country by washing away every particle of soil. *En passant* permit the remark that it is the opinion of General Job Ammen, who was sent by the War Department in 1872 to Panama on a tour of observation, that the De Lesseps scheme of constructing a canal between the two oceans at that point will and must end in failure. He says that the turbulent Chagres River, which crosses the line of construction some twenty-five times in thirty miles, is the great obstacle to overcome. During the dry season it is so low that its bed is almost a bare surface of glistening sand; but when the rainy weather comes on, and eight or ten inches of rain falls in as many hours, it becomes a raging torrent, forty or fifty feet deep and several hundred yards wide, the onward sweep of which it is impossible to withstand.

During the rainy seasons the rivers of Brazil and the contiguous valleys become vast inland seas. The Paraguay forms lagoons more than 300 miles in length, which ooze away during the dry season. Now let us consider the effects of so much moisture on the health of the people of the different countries. We have seen that in many parts of Brazil that the rainfall is excessive. Vegetation is prolific, the land is gloomy with immense forests. The woods extend from the foot of the lofty Andes down to the mouth of mighty Amazon. Animal life is found in all its multitudinous forms, from the slimy serpents, which crawl at your feet to the untold millions of insects which darken the air. Intermittent fevers are prevalent everywhere in the valleys, and all along the 4,000 miles of sea coast epidemics of cholera and yellow fever are of frequent occurrence. Passing directly south we come to Paraguay, with its summer from October to March, and its winter from May to September. The mean temperature is about 75°. The rainfall of 58 inches is distributed over only 84 days, the remainder of the year being clear and dry. The wind blows from the south 118 days; from the north 103, east 44 and only 3 from the west. The south wind is dry, cool, invigorating, and banishes mosquitoes. The north wind is hot and relaxing. Goitre, leprosy, dysentery and dyspepsia are the prevailing diseases. Uruguay, lying directly south of Paraguay, has the healthiest climate of any South American State, but does not much exceed the Argentine Confederation. That country is so far south as to be within the reach of the return trades, although not receiving much moisture from them on account of its being partly precipitated on the windward side of the Andes.

Chili gets the benefit of the return trades in excessive rainfall, and reaps the fruit in gastric, typhoid and typhus fevers and pulmonary complaints and dysentery. Sixty per cent. of the population perish under five years of age.

The Atlantic trade wind not only gives us the famous Gulf stream, but also our magnificent inland water-ways—the lordly Mississippi and its noble tributaries. It deposits annually from fifty to sixty inches of rain in each of the Gulf States, and a lesser quantity in the region lying to the northward. It pours into our lap wealth untold in the shape of immense crops of cotton, sugar, rice, corn, wheat, tobacco, and a thousand other productions. It has given this valley the finest forests in the world. Louisiana, Florida, Alabama, Arkansas and Mississippi are clothed in the richest and most luxuriant vegetation, both arborescent and herbaceous. Where in all this Western world will you find more valuable kinds of timber? There are the lofty cypress trees in which hang festoons of Spanish moss—

"Bearded with moss and in garments green, indistinct in the twilight,
Stand like Druids of eld, with voices sad and prophetic,
Stand like harpers hoar, with beards that rest on their bosoms."

And there, too, are live-oaks, and sweet gums, and tulip trees, and walnut, and pine, and cedar, and dogwood, and laurel, and palma christi, and boxwood, and satinwood, and mastic, and lignum vitæ, and spice trees. And do not forget the flowers that blossom in tropical profusion on the bottom lands and make glad the upland prairies. There are roses and magnolias and jasmines and camellias and oleanders, and also oranges and lemons and olives and figs and peaches and pears and plums and cocoanuts. But what of the health of this wonderful land? Terrible epidemics of yellow fever and cholera have ever prevailed; paludal fevers have a permanent abiding place, and the poison of malaria left its impress upon the physical, mental, and moral energies of the entire population. Open Mark Twain's "Gilded Age" and turn over to his picture of the "Acclimated Man" and tell me is not that a pretty fair representation of many of the inhabitants of the bottoms of the Red River and the Pearl and the Yazoo—those gay and gilded sinners who consume most of their time in talking politics, drinking whiskey, and *spitting at a mark?*

Turning our attention to the Eastern Hemisphere, we may briefly say that what is true of portions of America is true of all lands having an excessive rainfall, high temperature, and wet and dry seasons.

"In the equatorial regions, when the course of temperature and winds is regular, that of the rains is equally so; and instead of seasons of temperature, which are there unknown, the inhabitants draw the distinguishing line between the dry and the rainy season.

"Whenever the trade wind blows with its wonted regularity the sky presents a constant serenity and a deep azure blue, especially when the sun is in the opposite hemisphere; the air is dry and the atmosphere cloudless. But in proportion as the sun approaches the zenith the trade wind grows irregular, the sky assumes a whitish tint, it becomes overcast, clouds appear, sudden showers, accompanied with fierce storms, ensue. They occur more and more frequently, and turn at length into floods of rain, inundating the earth with torrents of water. The air is at this time so damp that the inhabitants are in an incessant vapor bath. The heat is heavy and stifling; the body becomes dull and enervated: this is the period of those endemical fevers that destroy so great a number of those settlers who have come from temperate zones. But vegetation puts on a new freshness and vigor; the desert itself becomes animated and is overspread for a few months with enchanting verdure, which furnishes pasture to thousands of animals. Nevertheless the sun in his annual progress advances to pour down his vertical rays upon other places; the rains diminish, the trade wind resumes its regularity, and the heavens shuts its windows once again until the following season."

Lying within the reach of the monsoons we find the valley of the Ganges. The region watered by that great river comprises some 240,000 square miles, or an area six times as large as the State of Ohio. The southeast monsoon brings from fifteen to twenty-five feet of solid rainfall, the effect of which is to inundate the entire country, which becomes a vast inland sea. When the water runs off the land is laid bare, upon which springs up a most luxuriant vegetation. The growth is very dense and very rapid. This continues for some time. When the dry season comes on there is not a drop of rain for six months. The effect can readily be seen. The fierce rays of the sun smites every green thing, and soon the air is full of poison and death is in the land. Now, living along the banks of the stream are many cities, holding millions of people, who are from all accounts the filthiest of all mankind. Why, they are worse than the old heathen whom I used to know out in Missouri, who said he had not been wet—"not all over, Doc"—since the War! Now righ there in that region we find the abiding place of the most horrible demon of whic we in this day have any knowledge

Cholera has its birth in the hot, moist vapors of the wet, uncultivated, undrained swamps of that stricken land. There are the perennial endemic sources of a disease which for centuries, under one name and another, has left its frightful lair and, borne on the wings of commerce, extended itself over the greater portion of the habitable globe. In 1829, 1832, 1845, and 1848 the disease spread from the delta of the Ganges to Persia, to Russia, and from thence along the Danube to Central Europe. In 1829 it was fifteen months in reaching the British Islands and twenty-three in arriving in America. In 1848 it took about the same length of time to make the journey, but in 1866 only five months were necessary for it to pass by the way of Alexandria to the coasts of the Euxine and so on to Western Europe and the United States.

After a close examination of the subject the writer of these lines feels safe in saying that if there were no trade winds blowing over the valley of the Ganges there would be no cholera in the world. It is there to-day. It has been there since the remotest antiquity, and when it comes sweeping over the earth again it will come from there.

In these hastily written lines the effort has been to show the intimate connection existing between heavy rainfalls, high temperatures, excessive vegetation, and wet and dry seasons on the one hand, and the production of malarious diseases on the other. Without the trade winds sucking up the water from the seas and casting it in vast quantities on the land there would be no rank vegetation to spring up as if by magic, and soon to be burnt up by the vertical rays of the sun and leave the atmosphere teeming with countless millions of poisonous organic and inorganic germs. The great centres of malarious diseases in different parts of the world are:

1. In America, on the shores of the Gulf of Mexico, the West India Islands, the northern portion of South America, and the deltas of the Amazon, the Orinoco, and the Rio del Norte.

2. In Asia, India, Borneo, China, and Ceylon.

3. In Africa, more especially in the countries around the Gulf of Guinea on the west, Madagascar and Mozambique on the east, Algeria, and the shores of the [illegible] of the Mediterranean on the north.

In those realms where the temperature is the highest, the rainfall the greatest, and vegetation is the rankest we find the worst forms of malarious, intermittent, and remittent fevers, associated more especially with dysentery, diarrhœa, malignant cholera, specific yellow fever, hepatic affections and their results. The paludal diseases of the tropics prevail in their greatest intensity in flat, low-lying countries, in the vicinity of marshes, the borders of lakes, the shores of rivers and the sea, and especially when the soft soil is damp underneath and of certain geological formation, especially if it is argillaceous or ferruginous soil.

When we look upon the wonderful land of the tropics we behold the most powerful springs of physical life, for it is there that Nature displays her fullest energies, her greatest diversity, her most dazzling splendor. In the clime of eternal summer are the most magnificent forests, the most profuse vegetation, the most fertile plains, the loftiest mountains, the deepest valleys, the most enchanting landscapes, the most beautiful flowers; and amid all these flow the broad, deep rivers, rolling their tranquil waters under leafy domes in the bosom of those untrodden wilds—the only pathway Nature has opened to the scattered inhabitants of those vast solitudes.

In the animal kingdom we discover the most boundless variety of species, from the birds of brilliant plumage and ravishing note clear along to the monarchs of the waste—the lion, the tiger, the leopard, the hyena, the horse, the camel, the elephant, and those gigantic pachyderms that people the deserts of the Nile and the Ganges.

Yet, strange to say, through some mysterious dispensation of Providence, these seeming favored regions never have been nor ever will be the abode of health. Death has ever lingered on the wind or lurked in the jungle.

Perhaps no more beautiful picture of tropical nature has ever been placed on paper than that we find in Byron's "Bride of Abydos." Abydos is a city of Mysia in Asia Minor, situated on the Hellespont, which is here only a mile wide. It was here that Xerxes crossed his army on a bridge when he invaded Greece 2,300 years ago. This was the scene of the successful resistance of the people when they were besieged by Philip II. of Macedon, and Abydos is also famed in story for the loves of Hero and Leander. Hero was the beautiful priestess of Venus at Sestos, where she was seen by Leander when he came to attend the celebration of the festival of Venus and Adonis. He became deeply enamored of her, and found that day an opportunity of declaring his passion, which she returned, and as her position rendered their marriage impossible they agreed to carry on a clandestine courtship. Nightly Hero placed a lamp in the top of the tower where she dwelt by the sea, and Leander, guided by it, swam the dangerous Hellespont. One stormy night the lamp was blown out and Leander perished. On finding his body next morning on the shore, Hero flung herself into the waves.

But it is not the story of invasion nor bloody battles nor unfortunate love that interests most the scientific and medical man when he thinks of that fair Grecian city. It is the history of the place as associated with those endemical fevers which time after time have entirely depopulated it ever since the days of Hippocrates. The traveller, gazing upon that most beautiful region, has ever asked the question, why it, of all places, should have ever rested under the dark shadow of a curse?

But excuse this digression. Coming at last to Byron's poem, I will ask you to note the many enchanting images that will rise before your mind when you read these lines:

"Know ye the land where the cypress and myrtle
Are emblems of deeds that are done in their clime?
Where the rage of the vulture, the love of the turtle,
Now melt into sorrow, now madden to crime?

Know ye the land of the cedar and vine,
Where the flowers ever blossom, the beams ever shine,
Where the light wings of Zephyr, oppressed with perfume,
Wax faint o'er the gardens of Gul in her bloom?
Where the citron and olive are fairest of fruit,
And the voice of the nightingale never is mute?

Where the tints of the earth and the hues of the sky,
In color though varied, in beauty may vie,
And the purple of ocean is deepest in dye;
Where the virgins are soft as the roses they twine,
And all save the spirit of man is divine?

'Tis the clime of the East, 'tis the land of the Sun!"

A REPORT OF ONE HUNDRED CASES OF ULCERATION OF THE CORNEA.

A Paper read before the West Virginia State Medical Society, at the White Sulphur Springs, W. Va., July 18 and 19, 1889.

By ED. H. FRAVEL, M.D.,
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In describing corneal diseases, it would seem to require, almost as a matter of course, some introductory account of the anatomy and physiology of the eye. The eye-ball proper is composed, first, of a fibrous tunic, the *sclerotica*, the protective envelope; the anterior transparent portion, the *tunica cornea;* the pigmented vascular membrane, the *choroid or tunica uvea;* the *iris* with its central perforation, the pupil; the nervous tunic of the eye, *the retina*, a highly complicated structure, which consists essentially of a percipient nervous apparatus for the reception of sensory impressions, and of a conducting apparatus, by which these impressions are conveyed to the sensorium. These tunics inclose the refracting media, the *crystalline lens*, a small biconvex concentrating lens inclosed in its lens capsule, a transparent membrane; the other refracting media surrounding this, first, aqueous humor, filling the space between the lens and the retina, and consisting of a jellatinous substance, inclosed in a transparent membrane, the hyaloid membrane. These media and tunics not only cast defined optical images upon the retina, but preserve the shape and tension of the organ. To facilitate description, we will describe the eye geometrically. The anterior pole of the eye-ball is the geometrical centre of the cornea. The posterior pole is the geometrical centre of the fundus. The axis is an imaginary line running from pole to pole. The equator is an imaginary vertical plane, passing through the centre, perpendicular to the axis, and divides the eye into two hemispheres, anterior and posterior. Meridians are imaginary planes, coincident with the axis; the vertical and horizontal are the two principal ones. The lens is described in like manner. The cornea is divided into quadrants, *e. g.*, to locate an ulce or foreign body.

The cornea is formed of five mem

branes. *First*, external epithelium; *second*, Bowman's membrane; *third*, the proper substance; *fourth*, Descemet's membrane; *fifth*, internal epithelium. The healthy cornea is non-vascular, but blood-vessels often become developed during disease. Nerves are numerous, which ramify not only in the deep layers of the anterior epithelium, but also in the proper substance, and anastamose freely, and form very fine and intricate plexuses. The outer surface of the cornea possesses a high degree of polish and smoothness, focusing images the same as all convex mirrors. As to transmitted light, the transparency of the membrane is nearly perfect. In old age, we frequently find the *arcus-senilis*, which is due to the fatty degeneration of the peripheral portion, and destroys its transparency. We have never seen it encroach upon the pupillary space, nor extend to the corneo-scleral junction. It very seldom appears prior to the age of fifty or sixty, but we have seen cases where the adjective *senilis* would have been an inappropriate term. It is generally a sign of fatty deposit in the other organs of the body, but is frequently found existing independent of it. We have seen several cases of exfoliation of the external epithelium of the cornea, produced by the careless use of cocaine. We saw some time since a case reported in a medical journal where the instillation of a two per cent. solution of cocaine produced the exfoliation. Hence, it is better never to give a patient cocaine in any *per cent.* solution for promiscuous use. Ulcerations of the cornea produce losses of substance, which are made good by cicatricial tissue, which at the best is opaque, and frequently produces flattening of the surface. Impaired nutrition is more marked in the centre of the cicatrix. When it projects is known as kerato-conus. Interstitial turbidity, produced by inflammation, is not absolutely permanent—in the worst cases resisting all treatment, and in the most favorable clearing very slowly, and leaving behind some degree of dullness. An ulcer, which to-day is small and eccentric, may in a few days extend itself so as to produce permanent opacity; and inflammation, which is marginal, may in a short time extend over the whole corneal surface. Hence, we should endeavor to arrest impending corneal troubles as soon as possible.

The most formidable affections of the cornea are those which arise during the course of conjunctivitis or are produced by the operations of changes which it leaves behind. The treatment should not be too stimulating, while in some cases it is required. Each case requires a careful study and attention in its treatment; routine practice often does harm.

Should the ulcer destroy several of the corneal layers and perforation is about to take place, it is better to put the eye at once under the influence of a mydriatic (duboisine we prefer to atropine, owing to the latter's liability to produce conjunctival irritation — homatropine and daturine we have used, but prefer the duboisine to these drugs, for it produces mydriasis in a shorter time and passes off sooner); and then perform paracentesis, which decreases intraocular tension, stops the tendency to prolapse of the iris, and causes the ulcer to heal up from the bottom. Where hypopyon exists, Saemisch's plan of cutting through the cornea across the ulcer, is the best form of procedure, because it will allow the removal of any pent-up pus. The operation should be performed with a Graefe's cataract knife, entered with its back to the lens at one edge of the ulcer, carried across the anterior chamber and brought out at the other side of the ulcer.

It is sometimes an advantage to keep the wound open for several days. Section often completely relieves the pain in these cases. The severity of ulcers are frequently reduced by scraping and burning with the mitigated stick or thermo-cautery. Should the case not be seen until prolapse of the iris has taken place, and is bound down by adhesions to the perforation, and the cornea is opaque immediately in front of the pupillary space, iridectomy should be at once performed at some locality where the cornea is transparent. The case should be at once put upon a tonic treatment. Quinine and iron should be administered in large doses. Should the slough be large and central, including nearly the whole cornea, exposing not only the iris but the capsule of the lens through the opening, effused lymph unites these structures together, and ultimately forms a smooth and semi-transparent surface, which sometimes allows the color of the iris to be seen beneath. Should the surgeon be called to see a case, however acute the inflammation, however great the swelling, however abundant the discharge, in which careful washing reveals transparent and polished corneæ, he may safely put his trust in nitrate of silver lotion, from gr. ii. to gr. v. to the ounce of the distilled water. Should the cornea show commencing turbidity, inquiry should be made in regard to hereditary syphilis. Should such a history exist, mercurial treatment should be resorted to.

Pannus is that condition when we find superficial roughening and vascularization of the cornea, and is caused by conjunctivitis. "We have two forms:—'pannus crassus,' when the cornea is extremely vascular and opaque, so that it assumes a red and fleshy appearance. 'Pannus tennis,' when the blood-vessels are few and scattered, opacity inconsiderable."—*Wells.*

Resumé.—Strong applications do more harm than good. The best results are obtained from mild remedies, such as nitrate of silver, boric acid, sulphate of zinc, acetate of zinc, etc., ranging from gr. ij. to gr. v. to the ounce, and if silver be used it to be immediately neutralized with a weak solution of chloride of sodium. Hedging and stone breaking are fruitful sources of sloughing ulcer of the cornea. Should the morbid process be not checked at once, the centre of the cornea will slough out, the case may then either terminate in staphyloma, or may go on to suppuration of the entire eye-ball. The most effectual remedy is a prompt iridectomy, which should be performed behind any portion of the cornea, which may remain clear. Should neuralgia of the eyeball exist in any of the corneal diseases, the eyes should be at once brought under the influence of a four per cent. of cocaine. If hypopyon exists with the ulcer, paracentesis should be performed, so as to give free vent to the pus. If any semisolid pus should remain after the operation it must be removed with forceps. We have in several cases irrigated the anterior chamber in hypopyon with the sublimate solution of gr. 1 to 20,000 gr. aquæ, with the best of results. In opacity of the cornea, from whatever cause it is produced, the best results obtained are from the insufflation of dry calomel alone, or in connection with iodoform. We have used iodol in several cases, but as it causes severe smarting it had better be abandoned as a corneal antiseptic. Iodoform meets all indications, and is the best corneal antiseptic we have. We have never had any experience with the *abrusprecatorius* in opaque cornea. It sometimes produces sloughing. Astigmatism often obtains owing to the faulty curvature of the cornea, and should be corrected.

In forty of these cases paracentesis was performed, and pretty fair vision obtained. But in none of them did it reach v=1. In fifteen of the above cases hypopyon existed, and in one eye of one of the cases vision was reduced to the faintest perception of light.

Sixty of the cases were of opacity of the cornea, due to pannus, produced by conjunctivitis, and were cured by a tonic treatment, and the insufflation of calomel, idoform, and a mild silver lotion. Ten of these sixty cases were *pannus crassus*, and in several iridectomy was performed. The degree of vision obtained was better than anticipated. The remaining fifty cases were *pannus tennis*, and in all vision reached normal or nearly.

The above hundred cases were found among all classes of society. The ages ranged from two months old to seventy years of age. The majority of the cases were males.

In looking up the literature on the subject of leucoma we find the following: In leucoma of both corneæ, where no marginal transparency exists, it sets aside the idea of an iridectomy. We would perform Von Hippel's operation, which consists of trephining the cornea, with his trephine, which is "provided with clock-work driven by a spring, and is so arranged that a circular knife can be graduated for any desired depth, is wound and made ready for operation." The procedure is divided into four portions: First, the introduction of the trephine; second, the excision of the trephined portion; third, the removal of the entire thickness of the corresponding piece of the rabbit cornea; fourth, the transplantation of the graft to the human eye."(1) Strict antisepsis is adhered to throughout the procedure. The operation would be well worth a trial even if the leucoma should affect the entire thickness of the cornea.

Owing to Teber's discovery in regard to Discemet's membrane, that transpar-

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1 Sajous' Annual of the Universal Medical Sciences, 1889.

ency is dependent upon its intactness, he has decided that it must be preserved, and limits the depth of his incision to the membrane itself. Should the iris be adherent or the eye staphylomatous, it is useless to operate. The cases reported are about ten or a dozen, with success in about four cases. The degree of vision is not given. Dr. Chisolm reports a case of double operation, in which "vision was reduced to light perception, gradually improved in two weeks' time to the detection of large objects as they move several feet in front."

WORKS CONSULTED.

Wells on the Eye; Carter on the Eye; Nettleship on the Eye; Sajous' Annual, 1888 and 1889, and various medical journals for 1888 and 1889.

THE TREATMENT OF OZENA WITH GLYCERINE.—At a recent meeting of the Society of Military Surgeons in Vienna, Dr. Sidlo strongly recommended the treatment of ozena with glycerine. His method consists in daily washing out the nasal cavity with a two per cent. solution of chloride of potassium, to which ten per cent. of glycerine has been added. This is followed up with the insertion of rolls of cotton soaked in a mixture of one part of glycerine and three parts of water, the tampons being allowed to remain in place for an hour at a time.

Using this method, he claims good success in the management of ozena. The method requires some weeks to effect a cure; but no one who has treated ozena often will think a few weeks too long to devote to any method which is likely to be successful. The one proposed by Dr. Sidlo is so simple, and apparently so rational, that it certainly seems worthy of further trial, and if other medical men can cure such cases as he has cured in this way, it will be a very useful addition to our therapeutic resources.—*Medical and Surgical Reporter.*

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations.

LEONARD FREEMAN, M.D.,
J. C. OLIVER, M.D.,
OTIS L. CAMERON, M.D.,
F. O. MARSH, M.D.,
Curators and Microscopists.

Correspondence.

THE ELIXIR OF LIFE.

Editor Lancet-Clinic:

I wish to report, as briefly as possible, the result of my experiments with the Brown-Séquard Elixir.

At two o'clock on the afternoon of Wednesday, August 14, I selected a well-developed buck lamb from a flock of ten. Immediately he was killed the testicles were removed, wrapped in a clean linen cloth and taken to the drug store of Wm. Harrison, of this city, where, in carefully cleansed vessels, the extract was rapidly prepared. Twenty-five minutes after the killing I made my first injection, and all were made within two hours.

My cases, seven in all, included: First, one case acute rheumatism; second, one case chronic rheumatism; third, one case chronic arthritis; fourth, one case general debility; fifth, one case senile debility; sixth, my partner; and seventh, myself. The two last named were done to watch what, if any, effect might be produced.

August 16, forty-eight hours after the injections were done, I would report: In four cases, except some slight soreness about the points of injection, *no effect whatever* was produced. I should say that two injections were made in each case of a syringeful of the extract, injecting into each arm except in my own case, where I injected into the calf of each leg. The fifth case in addition to the soreness mentioned, experienced a slight chill, followed by profuse sweating, some headache, and loss of appetite; this morning, August 16, is all right again. The sixth case began complaining about five hours after receiving the injection of very severe pains, extending from the point of puncture in the arms to the shoulder. No increase of temperature, no change in pulse-rate, some nausea, headache, and excessive sweating; no effect noticed upon kidneys or bowels. This a.m., August 16, feels quite weak.

I now come to my own case. As before stated, the injections were made in the calf of each leg, and except a momentary sense of discomfort, common to all hypodermic injections, nothing was noticed for about five hours, at which time was slightly chilly; considerable soreness in legs; temperature 100°, pulse 80; some headache, unusual appetite for supper. Retired about 8 p.m., and passed a very restless night; sweat very profusely; a constant sensation of cold was always present. On the morning of the 15th, with great difficulty got out of bed; dressed, ate a very hearty breakfast, and walked to the post-office; temperature 102°, pulse 100. Returned to bed at 9 a.m.; pain in head more severe; the legs below the knees somewhat swollen, red and very tender; this redness and tenderness was not along the course of the lymphatic vessels, but was general; at no time was there any enlargement or tenderness of the lymphatics; sharp pain in the loins; eyes intolerant of light. Condition one of partial stupor, dosing nearly all day, in spite of pain; sweating so profuse that two or three changes of clothing and bedding were made. At 6 p.m., temperature 102.5°, pulse 98; very hungry. Passed a restless night on the fifteenth. August 16, 6 a.m., temperature 100°, pulse 80; still considerable pain in head and back; much stiffness in the legs; can walk only with difficulty, and although able to walk, cannot stand still; appetite not so good as for two days previous; perspiring still freely; have noticed no change in bowel action; kidneys rather more active than usual; experience a general feeling of malaise.

This personal experience, coupled with the somewhat similar though not as severe experiences of two others, together with the absolutely negative results in the remaining four cases, brings me to the conclusion that there is not in this much of benefit, and perhaps the widespread experimenting now going on may work evils greater than any supposed good to be derived. All of my cases are emphatic in declaring that they received no benefit, were discomfited, and would not repeat the test.

S. H. Collins, M.D.,
Lawrenceburgh, Ind.

August 16, 1889.

Sulfonal.—The price of this valuable hypnotic has recently been greatly reduced. This will be good news to physicians compelled to keep their own stock of medicines. The uncertainty of remuneration often renders it practically impossible to furnish the indigent and those in moderate circumstances with high-priced medicines.

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

Terms, $3.50 per annum in advance.

☞ All letters and communications should be addressed to, and all checks, drafts and money orders made payable to

DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7th Street, Cincinnati, Ohio.

Cincinnati, August 24, 1889.

The Week.

SHEAVES.

Activity in working out the scientific problems that pertain to the health and lengthening of the days of man, is characteristic to a wonderful degree of the present generation of physicians.

The results of this work are carefully gathered up by individuals for presentation at the various society meetings, where it is winnowed by kindly criticism; the true separated from the false, and the sheaves added to the common stock and given to the world through the pages of the professional journal, which is often supplemented and revised for more convenient reference in handsomely bound volumes of Transactions.

Typical of these volumes is that of the *New York State Medical Association*, vol. v., for the year 1888, edited by A. L. Carroll, M.D., of Richmond County. This is a handsome tome of more than six hundred pages, every one of which evinces life and a spirit of investigation and observation that is worthy of the highest commendation. Much of the work of the society is assuming the character of collective investigations. Such investigations are of the very greatest value. The reports of the discussion on "Tumors from a Surgical Point of View" alone takes up more than a hundred pages, and fairly represents the most advanced professional knowledge of the subject at this time.

In the *Transactions of the American Surgical Association*, vol. vii., edited by J. Ewing Mears, M.D., we find garnered the sheaves gathered for the great professional storehouse, by one of the most active among the professional specialty organizations. Again we are forcibly reminded of the trend of thought and professional investigation, by finding able and carefully prepared papers on the importance of early diagnosis of malignant disease. With the lead of such men as compose this association, much knowledge must and will grow out of observations they make and record for the benefit of others.

Many of the most useful society organizations depend upon the ever vigilant and enterprising journalists for a permanent record of their proceedings. Notable in this class are the two great general societies—the American Medical Association and the Mississippi Valley Medical Association. The former holds its meetings in the spring and the latter in the autumnal months.

Our readers will bear in mind that the Mississippi Valley Association will hold its next meeting in Evansville, Ind., September 10, 11, and 12. Reports from the Committee of Arrangements indicate a genuine mass meeting.

These two great organizations are destined to exercise a guiding influence over professional thought and interests in the entire Nation. That this influence may be made most effective there must be established a complete system of collective investigation of diseases—their cause, symptoms, course, termination, and in connection with their prophylaxis and treatment. It is only in this manner that actual specific treatment can be scientifically arrived at.

The Mississippi Valley Medical Association is not composed of delegates from other societies, but admits to membership any regular physician in good professional standing with his brethren in his home neighborhood.

Evansville is a beautiful place and well supplied with good hotels, and everything has been done that is reasonable to make the ensuing meeting a great success.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.—More than a hundred titles of papers have already been sent to the Committee of Arrangements for the meeting next month, and the attendance will be so large that the Committee has wisely determined to divide the meeting into two sections, medical and surgical. This will enable the society to complete its work within the allotted three days. Last year, under the administration of one of the best presiding officers that ever guided the ways of a deliberative body, the society barely completed its work at the very last hour of the last day's session. The work promised and attendance greater than last year makes the plan adopted an actual necessity. It is the part of wisdom to recognize the situation in time and prepare accordingly.

THE American Association of Obstetricians and Gynecologists will hold it next annual meeting at the Burnet House, Cincinnati, on September 17, 18, and 19, 1889. No formal invitation will be issued to non-members, but the association extends a cordial invitation to members of the profession who may feel interested, to attend the meeting and participate in the proceedings. The papers and discussions will embrace subjects pertaining to obstetrics, gynecology, and abdominal surgery.

THE Philadelphia *Inquirer* has been re-examining the character of the Schuylkill River, the source of Philadelphia's water supply, and finds it to be very much contaminated almost all the way from the coal mines to the Fairmount Water-works. It describes it as a huge sewer draining an area inhabited by 250,000 people, before its waters are taken into pipes which supply 1,000,000 persons.

THE INTERNATIONAL WORLD'S FAIR.—There is no other exhibit of the class in the United States section to rival that of Wm. R. Warner & Co. From the globe-advertising Philadelphia merchant comes an exhibit which the native pharmaciens can look at with both admiration and wonderment. The display is enough to make any Frenchman curious, and their arrangement such as to be above deprecatory criticism; and there could not be a people with better taste for the proper and harmonious exhibition of products. A glance through their own magnificient section of pharmacy will verify this. Readers would find superfluous a description in detail of the Messrs. Warner's essentially fine installation covering all their soluble sugar-coated pills, salts, etc. Suffice it to remark that at the Paris Universelle their exhibit is thoroughly representative, comprises all the makers' fabrications, and is decidedly an honor to the concern. — *Pharmaceutical Record.*

THE REJUVENESCENCE OF ELDERLY WOMEN.—Dr. Brown-Séquard, in concluding a communication to *The Lancet*, July 20, 1889, on the effects produced on man by the subcutaneous injections of testicular liquid, states that "there are good reasons to think that subcutaneous injections of a fluid obtained by crushing ovaries just extracted from young or adult animals, and mixed with a certain amount of water, would act on old women analogous to that of the solution extracted from the testicles injected into old men."

It would be interesting to learn, also, the physiological effects upon old women of injections of the testicular liquid, and conversely of the effects upon old men of injections of the ovular.—*Med. News.*

ERRATA.—On page 153, line 12, second column. For "at least two more years" read at least two more *generations*.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending August 17, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	4	..	...	..	...	..	...	..	...
2nd	...	..	...	..	...	..	...	..	...	..	...
3rd	...	..	...	..	...	..	...	..	...		...
4th	1	..	...	1	...	1	2	..	...	..	...
5th	...	..	...	..	...	..	...	..	...	..	...
6th	...	..	...	..	...	..	...	..	...	..	...
7th	...	..	...	..	...	..	...	..	...	..	...
8th	...	..	...	..	...	..	1	..	...	..	..
9th	...	..	...	..	...	..	...	..	...	..	...
10th	...	..	1	..	...	..	1	..	...	..	...
11th	...	..	...	..	...	..	1	..	...	..	...
12th	1	..	...	..	...	..	1	..	...	..	...
13th	...	..	...	..	...	..	...	..	...	..	...
14th	...	..	...	..	...	..	1	..	...	..	..
15th	...	..	...	..	...	..	...	..	...	..	...
16th	...	..	...	..	...	..	1	1	...	..	...
17th	...	..	...	..	...	..	1	1	...	..	...
18th	...	..	...	..	...	..	...	..	...	..	...
19th	...	..	...	..	...	1	...	..	...	..	...
20th	...	..	...	..	...	..	2	1	...	..	...
21st	1	3	...	..	...	..	1	1	..	..	...
22nd	...	..	..	..	4	..	...	..	...	..	...
23rd	...	..	...	..	...	..	...	..	...	..	...
24th	...	..	...	..	...	..	...	..	...	..	...
25th	...	..	...	..	...	..	...	..	...	..	...
26th	...	..	...	..	...	..	2	..	...	..	...
27th	...	1	...	..	...	..	2	1	...	..	...
28th	...	..	...	..	...	..	...	..	...	..	...
29th	...	..	...	..	...	..	...	..	...	1	...
30th	...	..	...	..	...	..	...	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	1	...
Good Sam. Hospital	...	..	...	..	...	..	...	..	...	1	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	3	4	5	1	4	2	16	5	...	3	...
Last week	13	2	4	..	9	..	23	4	...	3	4

The following is the mortality report for the week ending August, 17, 1889.

Cholera Infantum	6	
Cerebro-spinal Meningitis	2	
Diarrhœa	1	
Entero-Colitis	3	
Whooping Cough	2	
Other Zymotic Diseases	16	—30
Cancer	5	
Phthisis Pulmonalis	13	
Other Constitutional Diseases	8	—26
Apoplexy	4	
Bright's Disease	1	
Bronchitis	2	

Convulsions	4
Heart Disease	5
Peritonitis	3
Pneumonia	5
Other Local Diseases	17—41
Old Age	3
Premature Birth	3
Other Developmental Diseases	8—14
Accidental	3
Suicidal	1— 4
Deaths from all Causes	115
Annual death rate per 1000	18.40
Deaths for corresponding week in 1888	117
Deaths for corresponding week in 1887	122

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 48 observers (embracing 38 counties) show the following diseases to prevail for the week ending Friday noon, August 16, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Diarrhœa	30	105
Dysentery	25	48
Intermittent Fever	21	53
Cholera Morbus	19	37
Cholera Infantum	17	26
Tonsillitis	17	25
Rheumatism (acute)	14	20
Typhoid Fever	14	19
Remittent Fever	10	31
Bronchitis, acute	10	14
Whooping Cough	8	43
Typho-Mal. Fever	8	21
Consumption (Pul.)	5	5
Diphtheria	4	35
Pleurisy	4	6
Pneumonia	3	3
Scarlet Fever	2	3
Erysipelas	2	2
Puerperal Fever	2	2
Measles	0	0
Cerebro-Spin. Men.	0	0
Croup, membranous	0	0

REMARKS.

Diphtheria reported by observers at Dialton, Worthington, Maineville, and Moscow (32 cases). Reported by health officers: Cincinnati, 5 deaths; Youngstown, 5 cases, 2 deaths; Toledo, 3 cases; Dayton, 5 cases; Mansfield, 1 case.

Scarlet Fever reported by observers at Dupont and Moscow. Reported by health officers: Cincinnati, 1 death; Millersburg, 2 cases; New Straitsville, 3 cases.

Typhoid Fever reported by observers at Martin's Ferry, Kalida, Piqua, Miltonsburg, Bethel, Maineville, Freeport, Kensington, Sharonville, Miamisburg, Plain City, Bloom Centre, Gillespieville, and Alexandria. Reported by health officers: Piqua, 10 cases, 1 death; Delphos, 4 cases; Wadsworth, 4 cases; Youngstown, 1 case; Oberlin, 2 cases; Norwalk, 1 case; Millersburg, 1 case, 1 death.

Twenty-five cases of Whooping Cough reported at Mansfield and twenty-one at Miamisburg.

C. O. PROBST, M.D., Secretary.

Selected.

REPORT OF THE UNITED STATES BOARD OF INQUIRY CONCERNING EPIDEMIC DISEASES AMONG SWINE.

[*Medical News.*]

The Commission, consisting of Drs. E. O. Shakespeare, R. Meade Bolton, and T. J. Burrill, appointed last November by the Commissioner of Agriculture to examine and report upon the causes and means of prevention of hog cholera, have just forwarded the report of their inquiry, which was cut short by the exhaustion of the appropriation at the disposal of the Department for the investigation.

The conclusions of the Commission are as follows:

1. It is the opinion of the Commission, based upon their own individual observations and examinations of the subject, that there are at least two widespread epidemic diseases of hogs in this country which are caused by different micro-organisms, but which have a clinical history and pathological lesions more or less similar and very difficult to distinguish without the aid of the microscope and resort to bacteriological methods; and that these two epidemic diseases have been fairly well described in the recent annual reports of the Bureau of Animal Industry, except it does not appear that "hog cholera" of these reports can be said to have its special or exclusive seat in the digestive tract of the animal as distinct from the lungs. So far as the knowledge and the observation of the Commission go, one of these epidemic diseases, viz., that called by the Bureau authorities "swine plague," appears to be far less prevalent than the other which has been named by them "hog cholera."

The Commission are further of the opinion that the disease called by the authorities at Washington "hog cholera" is caused by the specific action of a certain microbe named by them "the hog cholera germ," which has certain characteristics of form, size, movement, mode of growth in artificial cultures, and action upon certain lower animals, and taken together enable one to distinguish it from other microbes which have been described from time to time by various authors as present in swine disease, and that the descriptions of this microbe and its peculiarities, as set forth in recent annual reports of the Bureau of Animal Industry, are fairly accurate.

The Commission are also of the opinion, although to a less positive degree, that the epidemic disease called by the Bureau authorities "swine plague" has as its specific cause a certain microbe possessing characteristics which have been fairly well described in recent annual reports of the Bureau of Animal Industry, which distinguish it both biologically and pathologically from the first-mentioned "germ of hog cholera."

2. It is the opinion of the Commission that the actual and undeniable proof of the pathogenic relations between the so-called "hog cholera" germ, above mentioned, and the disease of hog cholera was first published in the annual report of the Department of Agriculture for 1885, and in the second annual report of the Bureau of Animal Industry of the same year, hence was not antedated with respect to epidemic diseases of swine existing in the United States. The discovery of the disease called "swine plague," and of the microbe to which it is due, must be considered original, on the part of the Bureau authorities, at least as far as work in the United States is concerned.

3. In the opinion of the Commission the epidemic disease of swine investigated by Drs. Billings and Roberts, in Nebraska, however seemingly different in the published descriptions, is identical in its clinical features, pathological lesions, and specific cause, with the disease investigated by the Bureau of Animal Industry at Washington, and called by the latter "hog cholera"; and, furthermore, that the pathogenic microbe which is the specific cause of this disease is identical in both instances. It is also their opinion that the descriptions of this germ, published by each of these investigators, are in the main correct. The two chief points in these descriptions upon which the above-menmentioned investigators have differed more or less widely, are as to some minor points of morphology and variation of the behavior of the microbe under various methods of staining.

4. It is the opinion of the Commission that the microbe which Dr. Detmers at present regards as the specific cause of "hog cholera" is probably the same microbe which is considered by the Bureau authorities as the specific cause of hog cholera; but, according to present requirements of bacterial research and interpretation, it is impossible to declare that the organism as described by him in his reports, published by the Department of Agriculture, was the same thing.

In their observation of the methods of bacteriological research pursued by the Bureau of Animal Industry at Washington, the Commission are of the opinion that as to carefulness and precision they are up to the standard of modern requirements concerning bacteriological investigations. They are essentially the same as those pursued at Berlin in the Pathological Laboratory of the Imperial Board of Health, and in the Hygienic Institute, of which Professor Koch is the head.

From their observation of the methods of bacteriological research pursued by Dr. Billings, in Nebraska, the Commission are of the opinion that it was difficult, if not impossible, for that distinguished investigator, by his usual method, to discover and isolate a germ associated with "the hog cholera germ" in the tissues of the body of the pig, and this is particularly true of the so-called "swine plague" germ, claimed by the Bureau authorities to be the specific cause of the epidemic disease latterly named by them "swine plague." In the opinion of the Commission, therefore, the failure of Dr. Billings in his researches to find the so-called "swine plague" germ in the tissues of the spleen (the organ from which he almost invariably made his cultures) cannot be regarded as incontestable proof that the "swine plague" germ has had no existence in the afflicted hogs which have fallen under his observation, and affords no evidence that this last-named disease does not occur in Nebraska.

The Commission regard their experiments concerning immunity as inconclusive and more or less indefinite; yet it seems to be evident that there is a certain degree of protection against artificial acquisition of hog cholera possessed by the Nebraska pigs which had been inoculated and which had recovered from the natural disease, the latter appearing to be slightly less protected than the former. Furthermore, the feeding experiments above mentioned appear to indicate that the hog can be artificially protected against the action of the virulent living cultures even to a greater degree by introducing the germs into the stomach than by subcutaneous inoculation.

It is the opinion of the Commission that the only proper way to test practically the real value of artificial protection against "hog cholera" is to expose the supposed protected pig to the natural acquisition of the disease under ordinary conditions, such as exist among a herd of hogs suffering from the natural disease. It is a well-known fact, brought to light by recent investigations concerning the nature of infectious diseases, that immunity or protection from a second attack, whether artificial or natural, is not absolute, but only relative in degree. There is no known infectious diseases, either of man or beast, capable of producing by one attack a degree of protection which is surely and absolutely effective against a second attack.

Experience has abundantly shown that animals which are naturally or artificially protected can be practically overwhelmed by enormous doses of the germs of the disease, and thus be made to suffer a recurrent attack, which may even be fatal. Furthermore, the method of artificial inoculation, and the mode of natural acquisition of the disease, also seem to influence materially the degree of protection acquired. For example, it is well known that Pasteur has put into extensive practical application in France his method of producing artificial immunity against anthrax in sheep and cattle by subcutaneous inoculation, and it is also well known that the losses by this disease among herds where the inoculation has been thus performed has been reduced ninety per cent. as the result of inoculation; yet Koch, as an opponent of Pasteur concerning the practical value of protective inoculation, has demonstrated beyond cavil that cattle in which subcutaneous inoculation has been practiced are but little protected against the acquisition of the disease experimentally by way of the digestive apparatus.

It is the opinion of the Commission that disinfection as a general practical means of preventing the enormous annual losses from diseases of swine in this country cannot be made effective under the conditions which exist in the West and other regions where hog raising is extensive.

As far as our present knowledge extends treatment of existing cases is utterly futile. There remain, therefore, to be considered but two alternative means of prevention—quarantine and extermination of infected hogs, with their surroundings, or on the other hand, some form of preventive inoculation.

The vast importance of the subject calls for an exhaustive investigation as early as possible of this latter means, for the former is very difficult of application.

Some of the tests made in Nebraska under the direction of Dr. Billings certainly give promise of great possibilities in this direction. It is the opinion of the Commission, however, that an attempt to produce immunity from "hog cholera" artificially by the use of the living germs of the disease, either through the stomach or through hypodermic inoculation, is very objectionable, and involves a serious risk of more widely extending the disease and increasing rather than diminishing the already enormous losses therefrom. For every hog thus treated becomes, for a time at least, a centre of infection from which an epidemic may directly or indirectly spread widely. Furthermore, the use of the living germs seems, at least in many instances, to stunt permanently the growth of the pig. Experience acquired in recent years shows that the chemical products of certain disease-producing germs in artificial cultures possess the same power to create immunity as do the living germs themselves; and some incomplete experiments performed by ourselves and others seem to indicate strongly that the chemical products of the "hog cholera" germ in artificial cultures also possess a similar power.

If further investigation shall prove this to be an indisputable fact, then, in our opinion, a safe, harmless, efficient, and extremely practical means of preventing "hog cholera" free from any risk of thereby extending the disease and continuing the enormous losses at present suffered by our countrymen will soon follow.

We have reason to believe that the threshold of such an important discovery has already been crossed; and we, therefore, earnestly advise that thorough and exhaustive investigations be as rapidly as possible made in this direction, and without stint of money or hampering limitations of time.

THE NEED OF UNIFORMITY IN PHARMACOPŒIAL PREPARATIONS.

BY A. KOENIG, M.D.

[*American Practitioner and News.*]

The truths that I hope to make evident to you are principally embodied in the statement that most of the preparations of vegetable origin, made in accordance with the process laid down in the United States Pharmacopœia, are of unreliable strength, or they may possibly be altogether inert. That such a condition of affairs should be tolerated in these days of advance in the knowledge of the action of medicine, and causation of disease, is almost beyond comprehension. * * * *

All crude drugs possessing curative properties will yield their active ingredients to the analytical chemist. The active matter can readily be separated from the vegetable tissue with which it is incorporated, and in this state of purity it can be administered with the absolute assurance that its physiological or chemical action will result. The United States Pharmacopœia makes but slight effort toward obtaining uniformity in strength in the officinal preparations. The preparations of opium and cinchona are the only ones required to conform to a certain standard of strength in active ingredients; and even these most important drugs are allowed to vary, except in one instance, to almost any degree.

The crude opium, for example, may be dispensed, provided it contains not less than nine per cent. of morphine. When we consider that fifteen per cent. of morphine is not an unusual percentage, it becomes evident that the effects produced by the administration of this drug must vary greatly. Further, the opii pulvis of the Pharmacopœia should contain not less than twelve nor more than sixteen per cent. of morphine, a latitude of twenty-five per cent. The only preparation of opium, aside from the alkaloids and their salts, having a fixed percentage of its principal alkaloid, is opium denarcotisatum, which contains fourteen per cent. of morphine.

With regard to cinchona preparations, the requirements are even more lax. Under the name of cinchona, the Pharmacopœia admits the bark of any species of cinchona containing at least three per cent. of its peculiar alkaloids. This, it will be admitted, is a step in the right direction, but the infusum cinchonæ, which the Pharmacopœia directs shall be made from this bark, will present of necessity wide range of strength. Under the term cinchona flava, the bark of the species calisaya, containing at least two per cent. of quinine, is recognized. From this variety an extract, a fluid extract, and a tincture may be made, and they also present wide ranges of strength. The bark of the species succirubra is known as cinchona rubra, and must conform to the standard of strength required for the yellow bark. The compound tincture made from this bark is also of the same unknown strength.

These are the more reliable preparations of vegetable origin for which the Pharmacopœia furnishes a formula. The remaining large number, many of which are of great value as remedial agents, can never be relied upon. Their variability may depend on several causes. The climate and soil in which a plant grows materially modify the proportion of active ingredients. The age of the plant must also be taken into consideration. And finally the almost incredible fact that men will jeopardize the lives of their fellow-beings, in their inordinate greed for wealth, by adulterating the more expensive remedies, forces itself on whomsoever investigates the drugs offered in the market. Crimes of this nature should be met with severe punishment, but as long as the active ingredients of Pharmacopœial preparations are an unknown quantity, it becomes a matter of difficulty to prove the sophistication and mete out the deserved punishment.

The strength of such important preparations as tincture of aconite, tincture of digitalis, tincture of veratrum viride, tincture of opium, and tincture of belladonna can, under our present methods, be determined only from their effects produced after administration; and by the time this has been accomplished the indication for their employment may have passed, or the patient may have succumbed to the disease. This is true not alone of the tinctures enumerated; extracts, fluid extracts, etc., are no more reliable.

The only remedy for this unfortunate condition of things that seems at all feasible would be to exhaust the active drugs of all of their active constituents, assay the product, and require the preparation to conform in strength to a percentage to be determined upon by the Committee on Revision of the Pharmacopœia. That has been done in the case of at least one drug, namely, elaterium; this, one of the most valuable hydragogue cathartics, fell into unmerited disrepute by reason of its unreliability of action. At the last decennial revision of the Pharmacopœia it was deemed advisable to drop elaterium from the list of officinal drugs and substitute in its place its active principle, elaterin, which can be separated from the inert vegetable matter composing the greater part of elaterium by chloroform and afterward crystallized. In this form it becomes an absolutely reliable drug, and may be administered with scientific precision. To facilitate its administration, some substance having no appreciable effect on the vital functions must be added; this is found in sugar of milk. The trituratio elaterini is composed of ten parts elaterin and ninety parts of milk sugar, producing thus a preparation of definite strength.

In view of this fact, the query, Why cannot other drugs be treated similarly? presents itself. Why cannot ergot, aconite, digitalis, and others be transformed into solid or liquid preparations of definite strength, thereby assisting to place medicine on a thoroughly scientific basis, and at the same time to prevent the skepticism that frequently characterizes the aged physician, whose life has been spent in an ofttimes ineffectual warfare against disease with these defective medicines? This delusion regarding the value of medicines as curative agents can unquestionably be traced to an oversanguine confidence of youth, engendered by the positive statement of teachers and authors, followed by the disastrous results obtained too often by the administration of inferior or adulterated substances recommended for the cure of disease.

Drugs furnished by the mineral kingdom may be obtained pure with much greater ease; nevertheless some of these are notoriously impure, while many other substances, such as volatile oils, etc., owing to the leniency of the law, are so adulterated as to be practically devoid of medicinal activity.

What is the remedy for this condition of things? Primarily it will become incumbent on the profession to establish a standard of strength for all the preparations made from drugs having known active ingredients. This being done, all deviations from the standard should render the manufacturer amenable to the law; and, finally, all persons convicted of adulterating officinal preparations made from drugs derived from the vegetable or animal kingdoms, as well as of chemicals used as remedial agents, should be dealt with with a severity little short of that accorded murderers. To bring about this needed reform, the proper course would undoubtedly be to place the manufacture of all medicines under the same restrictions that hedge the practice of medicine and pharmacy. Physicians must furnish evidence to the authorities of fitness to practice their high calling; pharmacists must conform to the same law; but any manufacturer so disposed may flood the market with inferior pharmacopœial preparations with perfect impunity. It is a matter of every-day experience that the price of valuable remedies varies in open market as much as one hundred per cent.

The question that confronts you, gentlemen, is: Are your prescriptions compounded with these cheap preparations? The mere fact that they are in the market indicates that there is a demand for them. There is but one solution to this deplorable condition of the drug trade, namely, to place it under govermental supervision. Every bottle of medicine in the retail drug store, used in compounding prescriptions, should bear the government's stamp of genuineness. Without stringent precautions of this nature, the physician will continue to do battle 'gainst the scythe of Death with a leaden sword.

TO ABORT A FELON.—Dr. Gaucher, says the *Therapeutic Analyst*, in writing on the abortive treatment of felon, states that to effect this object it is sufficient to moisten slightly the painful part with a little water, and to pass over this surface a stick of nitrate of silver. In a few hours after the skin becomes black, all pain disappears and the inflammation is arrested. No dressing is required and the black color disappears in six days.

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NUTRITION OF INFANTS.

By Henry D. Chapin, M.A., M.D.,

[*The Post-Graduate.*]

It is difficult to offer anything novel in connection with infant-feeding, but that the subject will bear repetition is shown by the gross errors constantly being made in the dietetics of infancy, and the disastrous results of mistakes at this time. Much of the great mortality of early life could be averted if we simply practiced the truths that are known with reference to physiological nutrition. Every effort should be made at the start to nourish the infant in the natural way, namely, at the mother's breast. It is astonishing with what insufficient, not to say frivolous causes, maternal nursing is abandoned. Upon a hasty assumption that the milk is poor in quality, or insufficient in quantity, the infant is deprived of the breast. Even if it is certainly ascertained that the breast-milk is inadequate, it is much better to partially nourish the infant in this way, one or two feedings a day from the breast being a great gain. If an infant gets enough at a nursing, after suckling for ten or fifteen minutes, it will quietly drop off to sleep, or, at any rate, appear satisfied When, on the contrary, the baby tugs at the nipple for half or three-fourths of an hour, and then leaves it fretting, sufficient nourishment has not been obtained from the gland. Perhaps the most accurate method is to weigh the baby before and after nursing, when there should be a gain of several ounces. If, in spite of all tests, the infant is not developing well, and appears thin and badly nourished, it is well to try supplementing the breast by some kind of artificial food. If the drain of lactation be too severe for the mother, the breast may have to be partially or entirely discontinued. It is certainly not right to allow a woman to wear herself almost to a skeleton in the effort to satisfy a vigorous infant. Under the right conditions of lactation, a woman should thrive, or even grow stout. Pulmonary tuberculosis, severe infectious diseases, as erysipelas or variola, extensive inflammation of the mammary glands and pregnancy will contra-indicate lactation. The recurrence of menstruation is also an indication to the mother to discontinue suckling. An exception to the latter rule may sometimes be found in the case of weak infants during the heated term of summer, when they are obliged to stay in the vitiated air of a city tenement house. In such a case it often seems better to take the chances with the mother's altered milk, during the menstrual molimen, than trust to the uncertainties of artificial feeding.

When dentition is very slow, especially if there be any evidence of rachitis, it is probable that the mother's milk is faulty, and additional nourishment must be provided. With reference to the exact time that other food be allowed the nursing infant, we must be guided by circumstances. Not infrequently, by the third or fourth month, the mother's milk begins to be insufficient, or she suffers under the drain of lactation. If both mother and infant are thriving, it is well to wait until eight or nine months, when semi-liquid food may be allowed. A soft pap, made with stale bread or soda-cracker and milk, answers very well. Solid food had better be withheld until the close of the first year. A gradual weaning should be completed at this time. Certain developmental changes, notably rachitis, are apt to be caused by late nursing. I have often noticed that the poorer class of Italians, in this city, nurse their infants very late, even to the second or third year, and these children are invariably rickety. It is, of course, desirable not to wean a baby entirely in hot weather, unless it can be under the best hygienic surroundings.

Many infants have to be fed artificially from the first, as their mothers are utterly unable to suckle them at all. These cases frequently exhaust the resources and ingenuity of the physician. After experimenting with many different substances, physicians have usually settled upon cows' milk, modified in various ways, as the most suitable and most available food. At the conference of 1882, held at Salzburg, the German physicians agreed that animal milk was the best food for infants, in lieu of human milk. Cows' milk must, therefore, form the basis of infant feeding, as other kinds of milk are practically not available. This being the case, every physician should have a clear conception of the resemblances and differences between cows' milk and human milk. Unfortunately this presents some exceedingly difficult problems for the physiological chemist. It seems strange that such a familiar fluid as mothers' milk should present any unknown factors. Yet why should not this fluid present as great variability as other animal fluids, notably the blood, in different individuals? It is found that the greatest variability in human milk is in the albuminoids, the most necessary ingredient for nutrition. Practically we see how the nutrition of different infants may vary within the limits of health. Nature must try to adapt the constitution of the milk to the condition of the child. Back of physiological analysis there is a mysterious and vital action that is not revealed by the microscope. Herein lies a difficulty of artificial feeding, that in some cases can never be overcome. Yet some writers tell us that it is often quite as well to bring up a baby by bottle as breast. Still, much can be done to bring cows' milk up to a condition resembling human milk. The older analyses made cows' milk much richer in fat than human milk. Later analyses would seem to justify us in reversing this conclusion. Other considerations may also have some weight in this connection. We know clinically that good results are often obtained by adding cream to the milk of the nursing-bottle. Animal heat is readily lost by the infant, and is very essential to its rapid growth and delicate organization. Hence, it seems natural to find the large proportion of milk-sugar and fat, that are heat-producing, in human milk. As regards the albuminoids, it is well known that not only are they present in large proportion in cows' milk, but that the total fraction coagulable by acids is much greater than in human milk. Hence, as soon as cows' milk reaches the acid stomach, large tough curds are formed, instead of the small floculi of human milk. In cows' milk as a substitute, the problem is, after reducing the proportion of albuminoids, to prevent, or act upon the coagulum in such a way as to split it up into small component parts, and finally to bring up the milk-sugar and fat to their proper strength.

Of course, the casein causes the most trouble. There are two ways of acting upon it, the mechanical and the physiological. It is found that certain substances, as oat-meal, barley, gelatine, dextrine, sugar, gum, etc., by being added to cows' milk, act physically as attenuants of the casein. These substances in themselves, however, posses qualities that may be either beneficial or injurious to the infant's nutrition. Infants under three or four months can digest only very small quantities of starch, as the salivary and pancreatic glands are then in a rudimentary condition. If they appear to thrive upon starchy food at this time, it is largely from physical action of the starch upon the casein of the milk taken with it. Very little of the starch is digested, and its use at this time is always liable to cause trouble. The cereal grains are probably most used as attenuants. If employed in early infancy for this purpose, the starch should be changed to dextrine. Our choice of the cereal grains may depend upon the condition of the infant. If there be looseness of the bowels, barley, which is deficient in fat, or wheat flour that has been subjected to prolonged heat, will make the best attenuant. Where constipation is present, oat-meal may serve, both as a laxative and attenuant. Sometimes gelatine may be used to modify the coagulum, besides having value as a nitrogenous food. The reaction of the milk must receive attention. While human milk is neutral, cows' milk is nearly always more or less acid. By rendering it alkaline, a much looser coagulum will form when it reaches the stomach. Lime water is thus an excellent diluent, particularly in early infancy, when the starches are contra-indicated.

The physiological method of dealing with the casein consists in peptonizing the milk. A reliable extract of pancreas, through the trypsin, will either completely or partially digest the casein. If completely done, the milk will acquire a disagreeable, bitter flavor. By only partially acting upon the casein, it will be coagulated in loose flakes. It is better to bring the sugar of cows' milk to the right proportion by adding sugar of milk or dextrine, rather than ordinary cane sugar or malt sugar. Vegetable sugars are more fermentable than animal sugars. Sometimes an infant that is not thriving will improve upon the addition of milk-sugar to the bottle. The proper dilution of cows' milk is, at birth, three parts of water to one of milk, gradually increasing the strength of the latter, until, at the third month, equal parts of each may be given, and by the sixth month pure milk may be given, although it is always well to continue adding a small quantity of water. Condensed milk is theoretically undesirable, on account of the large amount of saccharose, and because, as ordinarily diluted, the proportion of both the casein and fat is too small. It makes fat babies from the excess of sugar, but they are apt to be more flabby than strong. It sometimes makes a good temporary change, particularly when the baby is costive.

The many infant foods now in use are either farinceous, Liebig's, or milk foods. Analyses of these foods in comparison with human milk show that they add no essential element to cows' milk excepting sugar, and as their action upon the casein is purely mechanical and dependent upon their indigestibility they are liable to cause trouble. The farinaceous foods consist of the various cereals more or less subjected to heat, by which a portion of the starch is converted into dextrine. The Liebig's foods are a mixture of wheat-flour, barley-malt, bicarbonate of potash, and water. The gluten of the wheat furnishes a vegetable albuminoid. The excess of maltose may have a laxative effect.

The milk foods are produced by combining the cooked cereals with condensed milk. The latest of these preparations, Carnrick's, uses partially peptonized milk. The starch is changed to dextrine and not into glucose, as the latter is fermentable. The composition of this food is stated to be 45 per cent. dextrine, 45 per cent. partially predigested evaporated milk, and 10 per cent. milk-sugar. Practical experience within the past two years has proven that this food supplies sufficient nourishment for a child without further addition of milk.

The importance of giving infants a suitable supply of water is not sufficiently appreciated. Particularly in summer diarrhœa, when there is danger from loss of fluid, water should be offered at short intervals. Babies often wish the breast or bottle because they are thirsty, and not hungry. A restricted diet and a more liberal supply of water would doubtless prevent many attacks of diarrhœa.

HYDRACETIN, THE NEW ANTIPYRETIC. —At a recent meeting of the Berliner Medicinische Gesellschaft, Dr. Guttman read a highly interesting paper on Hydracetin, the new antipyretic and analgesic. A more felicitous designation for the new drug is the one adopted by English chemists, viz., pyrodin. The drug, as presented by Dr. Guttmann to the Society, was a white crystalline powder, without taste and odor, soluble in water in the proportion of one to fifty, but easily soluble in acetic acid. The new chemical is a reducing agent, and its action is the result of its power to absorb oxygen. Hydracetin shows even in small doses a powerful antipyretic action, as has been found by Guttmann in typhoid fever, consumption, scarlet fever, erysipelas, acute miliary tuberculosis, and septicæmia. The average dose of the drug is two to three grains, though five-grain doses have also been exhibited by Guttmann. If two grains of the drug are given at about 10 o'clock in the morning and one and a half grains an hour later, the temperature begins to fall an hour after the administration of the drug, and reaches its lowest level in two or three hours. The fall amounts to two or three degrees Centigrade—in some cases even to three or four degrees. The period of apyrexia lasts, however, but a short time, the temperature rising again with moderate slowness and regaining its former height in three to five hours. The action of hydracetin in acute articular rheumatism, as tested by Guttman in eight typical cases, deserves the practitioner's special attention. A two-grain dose affords a distinct remission of pain, beginning one-half to one hour after the administration of the remedy, and lasting for several hours. A two-grain dose given both in the forenoon and in the afternoon, suffices to remove the pain completely, or, at least, to alleviate its severity. The analgesic action of hydracetin was found to be a constant one, and did not fail in a single instance. This feature of promptness and reliability, of course, materially enhances the therapeutic value of the drug.—*Med. Press and Circular.*

"NAPHTHA habit" among the female employés of rubber factories is said to be increasing. The inhalation of naphtha fumes produces a peculiarly agreeable inebriation. Naphtha is used to clean rubber, and is kept in large boilers, to the valve of which the female employés obtain access, and breathe the fumes. The habit was introduced from Germany, and is reported to be chiefly found in the New England States.

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A VISIT TO APOSTOLI.

[*Medical Chronicle.*]

Engelmann contributes the following article on the use of electricity in gynæcology in the *Centralblatt für Gynäkologie*, No. 25, 1889:

The method of treatment by electricity in diseases of women, as recommended by Apostoli, has for the last two years received renewed attention from English and American gynæcologists. Numerous articles have been written for and against the method, and men like Spencer Wells, Playfair, and Thomas Keith have given it cordial support. Keith, the successful laparotomist, has given expression to his opinions in an article in which he refers to sixty-four cases of supravaginal hysterectomy on account of myoma, with only a slight mortality, and he declares that he regards it as a crime to proceed to operation before giving a fair trial to Apostoli's method.

Engelmann goes on to say that he and others have repeatedly called attention to the subject by publishing summaries and reviews of papers which have appeared from time to time, without attracting much attention. About a year ago the writer (of St. Louis) read a paper in the Gynæcological Society of Berlin, and at his suggestion Orthmann gave a successful trial to the method in old-standing cases of exudation.

Noeggerath has recently published an article in the *Berliner klinische Wochenschrift*, and these papers, with that of Bröse, appear to complete the German literature of the subject. When men like those named speak so warmly in favor of the treatment, it must be of interest to test the value of the method at its source. In this belief Engelmann found the opportunity lately of watching and studying Apostoli's treatment and its results for about fourteen days, and he offers, as probably interesting to the profession, impressions which were made upon him by what he saw and learned.

The chief point of difference between Apostoli's treatment and that of his precursors is that he employs strong currents such as were never formerly approximated —viz., 200 to 250 milliampères. He makes this possible by using a very large external electrode, which covers the greater part of the abdominal surface, so that the stream entering by the skin is distributed over a wide area. As the best material for this electrode, he employs modelling clay, which can be brought intimately in contact with the skin. The internal electrode ends in the majority of cases in a sound which is introduced into the uterine canal. This sound is made of platinum, because every other metal is attacked and corroded, at least when the positive pole is used. Other sounds are prepared from plastic carbon. In rare cases the internal pole is inserted into the tissues by means of an acupuncture needle, but only to the depth of ½ to 1 cm. Apostoli has completely given up the method, which he formerly recommended, of inserting the needle more deeply into the tissues.

Further, it is characteristic of Apostoli's method that he measures the intensity of the current by means of an exact galvanometer.

All applications are carried out under the strictest antiseptic precautions, the sounds and needles being heated to redness every time before they are used. The treatment is applied chiefly in cases of uterine myoma, but it is also used in endometritis, metritis, and inflammatory conditions of the adnexa, as soon as the acute stage is over, and various other diseased conditions are treated in the same way.

The faradic current is employed for the most part as a sedative in neuralgic conditions of the sexual organs, and chiefly by the introduction of a bipolar sound into the vagina or uterus.

The current is produced by means of a stationary Gaiffe's battery, with Leclanché elements. Recently a portable battery has been introduced, also constructed by Gaiffe, by which the problem how to obtain a current of sufficient intensity with small elements has been solved. This latter is strongly recommended by Engelmann, from his own experience of it.

The method of application is as follows: Supposing a case of large myoma uteri is to be treated, the patient is placed on her back on the operating table, the clay electrode is applied over the tumor, so that the skin is thoroughly wetted, the vagina is disinfected, and then the platinum or carbon sound, which has been heated to redness, and cooled in a disinfectant fluid, is introduced without the aid of a speculum.

As a rule, the sound is made the negative pole, but in cases of hemorrhage, it is the positive. The apparatus is now brought slowly into action. One element added after another, until the intensity reaches 30 to 80 milliampères, according to the sensitiveness of the patient. This suffices for the first application; and after five minutes the strength of the current is gradually diminished to zero. The vagina is again disinfected, and the patient is made to rest for a considerable time. The dispensary patients are made to lie down for several hours before they begin their walk home. The applications are repeated, not oftener than twice a week, and the intensity of the current is made ultimately to reach 150 to 200 milliampères. Pain in the uterus should not occur, but there may be contraction, discomfort, and even bleeding sufficient to require a tampon. The sensation in the skin must not exceed the burning of a mustard blister.

The process is modified considerably when a puncture is to be made, as in the treatment of chronic oöphoritis. The position of the enlarged ovary is exactly made out, and the isolating tube is pressed against it, under guidance of the finger. The needle is then passed through the tube, and made to penetrate the tissues to the desired extent, never more than 1 cm. The intensity of the stream is carefully increased to 30 or 40 milliampères, the application lasts for only two or three minutes, then the parts are carefully disinfected, and a tampon is applied. The patient rests in bed for a day or two.

Engelmann then proceeds to give his impressions regarding Apostoli, and the results of his method. He visited the *clinique*, in order to test the method, without any prepossession in its favor. From the writings of Apostoli's disciples, he had taken the impression that though the treatment might be useful in some cases, still there were required for its employment a good deal of enthusiasm, and an absence of the critical and scientific turn of mind, if nothing worse. The impression which Apostoli himself produced was absolutely favorable. "He presented the appearance of a quiet, sober-minded, strictly scientific observer, with nothing enthusiastic or superfluous about him. The first impression was deepened by his bearing as a clinician. Apostoli has a plentiful supply of clinical material, and he makes use of it in a strictly scientific fashion. The notes of cases are taken in a full and exact manner, and the examinations are made in such a way as to create, in the numerous on-lookers, the belief that Apostoli is an able diagnostician, very far from deserving the reproaches levelled against him in some quarters. Every case is examined by one or other of the specialists present, among whom are to be found many bearing widely-known names, and thus the diagnosis is tested in every way." Every facility is afforded the visitors towards obtaining the histories of cases, and satisfying themselves as to the effects of the treatment. In cases of tumor the investigation is specially searching and exact, in order to eliminate every error, if possible. The measurements are taken with extreme care, and in interesting cases of large tumor, plaster casts are made at intervals during the treatment, in order to demonstrate the changes which have occurred.

After specially referring to the striking effects of the faradic current in ovarian neuralgia, mentioning in detail his own method of examining into the results, and stating the facilities offered him, Engelmann puts his conclusions in the following propositions:—(1) The electric treatment of diseases of women is a distinct addition to our means of dealing with some of these obstinate ailments. (2) Apostoli's method rests upon a scientific basis, and is employed in a strictly scientific manner. The results which have been obtained by it appear to excel essentially the results of other methods of treatment. It is, therefore, the duty of the gynæcologist to familiarize himself with the process, and to subject it to a searching test. (3) The results in cases of myoma are such that, considering the uncertainty of other methods of treatment, and the high mortality of hysterectomy, we must welcome any additional aid, in the hope of possibly avoiding the danger of operation. It appears to be a just position to maintain that operation should be proceeded with only when the electric treatment has been fairly tried and has failed. (4) Many of the diseases of women, especially metritis, endo- and perimetritis, as well as inflammation of the adnexa, appear theoretically to be suitable for electric treatment, and have proved to be so in practice. (5) The method of treatment is simple, easy to learn and to carry out, and it presents no danger, if antisepsis be attended to. The cost of the apparatus is not so great as to be a hindrance to its use by the specialist.

ACETIC ACID IN DIPHTHERIA.—F. Englemann (*Deutsch. med. Wochenschr.*, No. 46, 945, 1888) made extended bacteriological studies on many of the different substances usually employed as local applications in diphtheria, in order to determine their power to prevent the growth of micro-organisms. After detailing somewhat the nature of his experiments, he concludes:

1. Diphtheria must be treated on the same principles which are generally accepted as applying to analogous processes in surgery and obstetrics.
2. The majority of the substances recommended for local application in diphtheria deserve no confidence, since they do not exercise sufficient antiseptic power.
3. Almost only those act with certainty which in sufficient concentration have proved themselves of value in surgery also. Like these, acts the hitherto little esteemed acetic acid.
4. Most of the powerful antiseptics are ill-suited for use in diphtheria, on account of their local or general poisonous action.
5. Acetic acid appears especially to be recommended on account of its certain antiseptic action, its harmlessness, and the slight irritation which it produces. It possesses, also, in high degree, the power of penetrating animal tissues.—*Albany Medical Journal.*

MENTHOL IN ASTHMA.—Dr. Jores mentions, in the *Therapeutische Monatshefte*, that he has employed menthol with success in asthma. The patient was a woman who had asthmatic attacks for which all the usual remedies had proved unsuccessful. Jores then resorted to menthol, a twenty per cent. solution in olive oil. While before its use there were crackling and rattling rales heard in the lungs, the whole attack disappeared after a few inhalations, and auscultation showed that respiration was entirely normal, the heartbeat unchanged, the pulse full and strong. The patient said that she frequently felt in her head as though she had inhaled chloroform. Since its first employment the remedy has proved promptly successful in all attacks.—*American Practitioner.*

Bibliography.

CYCLOPÆDIA OF THE DISEASES OF CHILDREN, MEDICAL AND SURGICAL.

Edited by JOHN M. KEATING, M.D. Vol. i. Philadelphia: J. B. Lippincott Co., 1889.

On receiving notice of the proposed publication of an actual cyclopædia devoted exclusively to diseases of children, we wondered how such a work could be accomplished, and if accomplished how meagre must be its proportions.

This first volume dispels any doubts as to its character, and we are now only amazed while we contemplate the extent and completeness of the work thus far accomplished. We find attention directed not only to the medicine and surgery of Pediatrics, but also to all the specialties that directly and indirectly pertain to this domain of our art. As we go further in our examination we realize that the work is in fact a collection of monographs systematically put together and dubbed a cyclopædia.

Part One takes up the "Anatomy of Children," by George McClellan, M.D., in which is shown a series of photographs of children at various periods of life, showing all the anatomical points, including the viscera in position.

Chapter II is devoted to the "Physiology of Infancy," by Angel Money, M.D., M.R.C.P., in which the author opens the door to the natural life of the child, in which he shows the great importance of the growth and development of the infant, chemistry of its secretions and the bearing they have on the nutrients that are given. Strange as it may seem, the author announces that the subject of the physiology of infancy is a comparatively unworked field.

Chapter III, by James Finlayson, is on "Diagnosis," in which we find depicted in an admirable manner the best methods for examining sick children, and the inferences to be drawn and conclusions arrived at from such an examination.

This is succeeded by a chapter on the "Influence of Race and Nationality Upon Disease," by J. Wellington Byers, M.D., and one on the "Outlines of Practical Bacteriology," by E. O. Shakespeare, M.D. In this chapter is given an excellent outline of the practical methods adopted by him in his own experience. The professional reputation of the author as a scientist is sufficient to indicate that his ways are about the best that can be adopted by other doctors.

A chapter on "Maternal Impressions," by Wm. C. Dabney, M.D., is very interesting.

"The Care of the Child at and Immediately After Birth, in Health and Disease," by R. A. F. Penrose, M.D. This is one of the most useful chapters in this volume; each paragraph is almost an aphorism by itself.

The chapter on "Injuries of the New-Born," by Theophilus Parvin, M. D., is followed by one on "Infant Feeding and Weaning," by T. M. Rotch, M.D., and one on "Diet after Weaning," by Samuel S. Adams, M.D. This is followed by a chapter on "Nursing of Sick Children," by Miss Catharine Wood, and on "Nursery Hygiene," by L. M. Yale, M.D.

A chapter on "Puberty: Its Pathology and Hygiene," by Thomas Moore Madden, M.D., is so excellent we only regret that it is not much more extended and made more thoroughly complete.

This brings us to the end of the first part. Part Two is devoted to "Fevers and Miasmatic Diseases," and is introduced by a chapter on "Fever," by William Pasteur, M.D., F.R.C.P., with general considerations and treatment of simple continued fever.

The chapter on "Diphtheria" is by the well known author, J. Lewis Smith, M.D., wherein is given a complete summary of this dreaded disease.

Pertussis, variola, rheumatism, rubeola, vaccination, malaria, and yellow fever have each a chapter.

The publishers have issued the work in the very best style of the mechanic arts.

A SYSTEM OF GYNECOLOGY.

By American Authors. Edited by MATTHEW D. MANN, M.D. Vol. I. Philadelphia: Lea Brothers & Co.

This great work very properly opens with a Historical Sketch of American Gynecology, by Edward W. Jenks, M.D., of Detroit, in which he takes occasion to trace the art from the days of Hippocrates to the present day; in which, however, he finds but sparse gleaning-ground until the present century, with the very beginning of which sprang up an interest in the study of the diseases of women, and, singularly enough, this interest may be said to have started from McDowell's now famous operation of ovariotomy, in 1809. This operation and the operator is graphically described. In like manner, the reader is lured along with ever-increasing interest through the work of the men who have made for the specialty a wide nitch in medicine and surgery, for its domain straddles over both departments.

The Development of the Female Genitals, by H. J. Garrigues, M.D., of New York, and a chapter on the Anatomy of the Female Pelvic Organs, by Henry C. Coe, M.D., of New York, are especially valuable on account of their excellent illustrations. In fact, anatomy can only be properly studied by means of illustrations and the actual subject.

Malformations of the Female Genitals next claims attention in a chapter by H. J. Garrigues, M.D. Here we also find the subject-matter made practically useful to the reader through the liberal use of excellent illustrations.

The subject of Gynecological Diagnosis is taken up and treated in a masterly way by Egbert H. Grandin, M.D., of New York. This chapter should be republished as a little monograph, and thus placed within the easy reach of every general practitioner.

General Considerations of Gynecological Surgery, by E. C. Dudley, M.D., of Chicago, illustrates modern surgery in its most advanced state. Methods of operating are delineated in the most excellent manner, to adequately describe which would be to reprint the chapter.

General Therapeutics is the subject of a chapter by A. J. C. Skene, M.D., of Brooklyn N.Y.

A chapter on Electricity in Gynecology, by A. D. Rockwell, M.D., of New York, is perhaps the very latest work by this accomplished electrician. We have here a summary of his immense experience and observation.

Menstruation and its Disorders, by W. Gill Wylie, M.D., of New York, and Sterility, by A. Reeves Jackson, M.D., of Chicago, are followed by a chapter on Diseases of the Vulva, by Matthew D. Mann, M.D., of Buffalo, and the Inflammatory Affections of the Uterus, by C. D.

Palmer, M.D., of Cincinnati. These chapters are apt illustrations of the advances recently made in our knowledge of the subjects treated. The chapters by Drs. Mann and Palmer are well illustrated by chromo-lithographs.

Subinvolution of the Uterus and Vagina, by Thaddeus A. Reamy, M.D., of Cincinnati, is an excellent chapter, in which the author graphically illustrates his method of restoring such deformities: by restoring to the normal direction the blood-vessels and lymphatics and removing all undue pressure; and the depletion by removal of tissue, with union by first intention, and promotion of lymphatic absorption.

Peri-Uterine Inflammation, by Richard B. Maury, M.D., of Memphis, and Pelvic Hæmatocele and Hæmatoma, by Ely Van de Warker, M.D., of Syracuse, N.Y., are concluding chapters in this great work.

A Treatise on Surgery: Its Principles and Practice.

By T. Holmes, M.A. Cantab. Fifth edition. Edited by T. Pickering Pick. Philadelphia: Lea Brothers & Co., 1889. For sale by Robert Clarke & Co. Price $7.

In taking up this work there are two things that are at once noticeable, viz., its special adaptation as a text-book for students and the unusually large number of actually new wood cuts made from original drawings. In all else the work is an excellent compilation and exposition of surgical knowledge at this time. The arrangement of subjects is systematic and well adapted either for consecutive study or occasional reference.

Physiological Notes on Primary Education and the Study of Language.

By Mary Putnam Jacobi, M.D. New York and London: G. P. Putnam's Sons, 1889. For sale by Robert Clarke & Co. Price $1.

The well-known author of this little book places before the reader the subject of primary education from a physiological point of view as seen by her, giving as her definition of the purposes of an education to be "efficiency and repose." This is to be best acquired through the object method of teaching, which is delineated by the author in a way that must attract the attention of practical educators.

Miscellany.

MEDICAL HUMOR.

Collated from various sources by T. C. M.

Pleasant for Uncle Jack.—(Uncle Jack returns from a long walk, and, being somewhat thirsty, drinks from a tumbler he finds on the table. Enter his little niece Allie, who instantly sets up a yell of despair.) Uncle Jack: "What's the matter, Allie?" Allie (weeping): "You've drinked up my aquarium and swallowed my free 'ittle pollywogs."—*Daniel's Texas Medical Journal.*

* * *

A TRAGEDY—IN SIX LETTERS.

A

She looked into the druggist's eyes—
This sweet Detroit maid:
"Can you some castor oil disguise,
Sir, so it won't taste?" she said.

B

"Of course I can, with greatest ease,"
Was the smiling clerk's reply.
"And whilst it's being done, say, please,
Will you our soda-water try?"

C

The soda-water charmed the miss,
So nicely was the syrup mixed.
"Thank you," she said, "for this;
I'll wait till you the oil have fixed."

D

Full twenty minutes passed away,
He waiting on others, well and sick.
"See here, young man," said she, "I say,
I want that oil, and want it quick!"

E

"My dear," did the dapper clerk reply,
His eye mischievously winking,
"The oil you wished I put, on the sly,
In the soda you just were drinking!"

F

"O Lord!" she groaned, with deep-drawn sigh,
Her cheeks, the hue of a lobster,
"The oil was not for me, O my!
'Twas for my baby sister!"
—W. M., in *N. Y. Weekly.*

* * *

Medical Criticism of Art.—A writer in the *Union Médicale* of May 31, criticizes some of the pictures of the present *Salon.* He says: "In the consultation," an old doctor seated before a table, auscults the back of an emaciated little girl while two Sisters stand near by with an air of cold indifference. A sad picture and well painted; but why did not the doctor have his house surgeon with him? That is the rule at the hospital. . . . Mr. Perandeau gives us a clinical study. Seated upon a bench is a row of women dressed in black, and all of them pale, a condition which the painter evidently believes the chief sign of all diseases. One lady, coughin her handkerchief, personates phthisis in its classic form. But why is the picture so full of sadness? Even charity patients often amuse themselves while waiting; and many patients go to the hospitals who have not the smallest idea of dying there. . . . Mr. Olaria's picture, with an appearance of sadness, is really quite enlivening. A moribund infant is being bled by the family doctor and the blood is flying out in excellent style. But behold the accompanying legend: "The young Olaria restored to life by Dr. M.; A portrait." This is from a grateful patient! Confrères let us salute. . . . We desire to notify Mlle. Lee-Robbins that her "Young Japanese," who is happy and full of nice color, is suffering from a right genu-valgum. . . . We also desire to say to Mr. Lecompte du Nony that his "White Slave," otherwise a very agreeable lady, possesses a left elbow which gives rise to serious doubts as to the soundness of the articulation. But perhaps his model had had a luxation which left her a "punchinello elbow." . . . Berthault's "Words of Love" fills its decorative mission; but why is it that the lady, so sweetly seated upon the ground, puts forward her knee so prominently? She must be aware that she is suffering from hydrarthrus, but perhaps she forgot.—*New England Medical Journal.*

* * *

Ah, There!—Examiner: "How would you treat a case of gonorrhœa?"

Student: "With the greatest contempt, sir."

* * *

Cardiac Displacement.—"Were you wounded in the Crimea, Pat?"

"No, yer honor; the bullet hit me in the chist and kem out at me back."

"Why, Pat, that would have gone right through your heart.

"Och, faix, me heart was in me mouth."—*Philadelphia Medical Register.*

* * *

At Crab Orchard Springs.—Invalid: "I have been here now for six weeks and I don't see that the water has had the slightest effect."

Dr. Candid: "You must have patience. There was a man here last season who didn't die until after he had been here two months."—*Judge.*

* * *

SONG OF THE BACILLI.

We're an army of bacilli,
And germs and micrococci,
Most numerous to behold!
We've been brought into distinction
To cause the quick extinction
Of people in the world.
But sadly do we rue the time
When scientists "caught on" our crime,
So ancient, yet so bold!

In former days of medicine,
'Twas not thought necessary in
Bad cases of disease,
For a doctor to decide, and tell
What made his patient ill, or well,
Unless it him should please.
And so an "All-wise Providence"
Was made to stand the consequence
Of causing their decease.

But in these later days of sense,
The students must be most intense
In seeking after wisdom.
Knowledge microscopical,
And also biological
(And others still to come),
Is now required by boards of health.
But medics often pass by stealth
Three years' curriculum!

So great and urgent was the call,
For knowledge of the causes all,
Which blight the strong and healthy,
That savants undertook to find
The reasons for the great decline
In health, of poor and wealthy.
So well their task they set about,
They were not long in finding out
Our family so stealthy.

And now Pasteur, and Koch, and Klein,
Sternberg, and Cohn, and Laveran,
Can call us all by name;
They know our family history,
Our pedigree, posterity,
And just from whence we came.
For years we've fought with ghoulish glee,
Though small, and very hard to see,
We've got there just the same.

But now our tricks, so dark, are o'er,
And what we've done with germ and spore
Is fully comprehended;
The doctors know our tendency.
Of us they've made a list, you see,
To text-books we're appended.
Professors make nice diagrams
Of us, as well as cryptograms.
Alas! our dream is ended.
—*Transactions Ohio Sanitary Association.*

THE

CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, August 31, 1889. *WHOLE VOLUME LXII.*

Correspondence.

CHIT-CHAT FROM LONDON.

LETTER NO. II.

LONDON, August 16, 1889.

Editor Lancet-Clinic:

At the hospital we find the medical man surrounded by students, most of them carefully taught at Harrow and Cambridge or Eaton and Oxford. Around him also are to be found American physicians, who are clubbing together and "doing" the Continent. Sparing of speech, their eyes, ears and hands, as well as brain, are ready for action. The physician, who knows the treatment of his countrymen when visiting America, is always glad to see them.

The hospital surgeon is communicative, friendly and modest. He is in complete sympathy with the sufferings of the poor. Slow and wary in operating, he readily acknowledges his mistakes, as well as attends to little things, that in the aggregate might decide the failure or the success of the operation. Usually he is undemonstrative and grave; he asks the patients questions from nervousnessness when he wants them to keep quiet, or he may be facetious. Were it not for the term "chestnut," I should record some of his jokes. Here is one told me by a chum of the Prince: Having given the iodide of potash in a disease without success, electricity was applied; when the patient was well the house surgeon inquired which of the two had wrought the cure. "We will not say which," said he, "but may claim that the disease was overcome by a salt and battery."

Sometimes he may have peculiar views on the subject of treatment which have their basis in being different from the views of his colleagues, but usually he adopts what science has suggested and experience indorsed. Hence we find that in the operating theatre of the Woman's Hospital antipseptic surgery prevails. Men are only admitted to view the operations who have first subscribed their names to a book stating that they have neither been exposed to infection nor attended previously a post-mortem. The curtains over the doors are saturated with sublimate, the floor is waxed and furniture rubbed with turpentine, and the air of the room is maintained at one temperature. The instruments are boiled in sublimate, and no manner of grooved probe is used to which germs might cling. If the operation is for menorrhagia, dysmenorrhœa, vaginal polypus, urethral caruncle, or lacerated cervix, the vagina is previously irrigated with a solution of the permanganate of potash; and the abdominal cavity, in operations in that cavity, is likewise thoroughly cleansed.

Since the bacteriological microscope has demonstrated the existence of the staphylococcus pyogenes aureus in suppurating wounds, its destruction has been sought by the use of sublimate, carbolic acid, iodoform, and salicylic acid. The use of these agents is attended with the happiest results in the treatment of wounds, and there are few surgeons who do not make a show of using them.

The immoderate use of these antimycotic agents, as sublimate or iodoform, may affect the digestive tract, as well as the kidneys, and so give rise to death. Therefore, great care is taken in patients coming to the operating table with parenchymatous diseases of the organs to irrigate serous cavities with agents of a very weak power. As it is known that the vegetable micrococcus lives after the vitality of the cell is destroyed, we arrive at the conclusion that antiseptic treatment in wounds is not the depot, but merely the way to reach it, and antiseptic surgery has not yet arrived at its completion. Instead of poultices or water dressing, pink or blue-colored cotton is now laid over the wound. An English writer, in his book, advises the use of cotton-wool *fresh* from the sheep's back.

In the treatment of affections of the nose, or in laryngoscopic examinations with subsequent operations on the throat, there is but slight attention given to antiseptics. In operations upon the eye, however, it is quite the reverse. Here the instruments to be used are first boiled in sublimate, and the assistant, when handing an instrument, first dips it into sublimate solution. I have observed that, where sublimate has been used after cocaine has been applied to the eye, erosion of the cornea takes place before the operation is over.

Another element in the London hospitals that contributes largely to the success of major operations is having chloroform, ether, or nitrous oxide gas administered by men who thoroughly understand the action of these anæsthetics. In some operations upon the eye all three anæsthetics are used on the same person. The chloroform is dropped, as needed, upon a piece of sponge fixed in a flannel hood or upon a bit of flannel applied to the mouth. In operations for ovariotomy, hysterectomy, or in removal of malignant masses from the abdomen with ovary as well as uterine appendages, it is required that the anæsthesia should be prolonged. In such cases Junker's inhaler is used, consisting of face-piece, stop-cock, valves, and red india-rubber bag. Adhesions sometimes are of such a nature that in separating them much hemorrhage is the result. The condition of the patient is critical. The chloroformist places the patient in an inclined position, applies a warming apparatus to the feet, holds up the drooping jaw with one hand and applies his finger to the pulse with the other. He rubs brandy around the interior of the mouth and upon the lips till the puffing again of the cheeks or snoring noise shows that some reaction has taken place.

Those who have had syphilis, or those who have inherited syphilis, are bad subjects for either chloroform or operations. These are the cases that mostly seek hospital help. Usually the patients deny ever having had syphilis. One, who is in service, might lose his place; another, who exhorts his brethren, would lose his influence. In some cases the ophthalmoscope may show retinal and choroidal changes which point to syphilis, but there are other signs to be found at least quite as suggestive. In the hospital at Moorfields, as well as in the ophthalmic department of St. Mary's Hospital, there is a constant succession of interesting cases. Such cases are not placed on record for the reason that the surgeons have not the time to utilize the material in their possession.

I remember when, at the time of Guthrie, the ophthalmoscope was being tried in a dingy room at the Westminster Ophthalmic Hospital. Hancock ridiculed the idea, and told me that more eyes were ruined by it than saved. Now every student of this branch of medicine is expected to have an ophthalmoscope in his pocket. At Moorfields I knew a student, who to-day stands very near the highest of the eighty-two ophthalmic surgeons in London, who had much difficulty in looking through the instrument at the retina. Some American students, much quicker than he, told him in ridicule to keep on looking, which he did, and they to-day are reading his book.

The less informed in the profession are very liable to over-rate the use of such instruments as the ophthalmoscope and microscope in medicine or surgery. In cases of chronic kidney disease the ophthalmoscope might reveal its presence by diffuse opacity of the retina, with hemorrhages and white patches; and the rare speckled opacity in the region of the maculæ in central recurrent retinitis might make us suspect the presence of syphilis, or optic neuritis might awaken our suspicion as to the presence of cerebral tumors or meningitis; but it is only in developed cases, where we have collateral symptoms, that these ocular changes are absolutely characteristic of the respective diseases. "But in one published case we had both optic neuritis and cerebral symptoms without any brain disease that could be discovered in post-mortem." Yours truly,

"BULL'S EYE."

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations.

LEONARD FREEMAN, M.D.,
J. C. OLIVER, M.D.,
OTIS L. CAMERON, M.D.,
F. O. MARSH, M.D.,
Curators and Microscopists.

Selected.

AN UNUSAL CASE OF INTUSSUSCEPTION.

By HERBERT W. PAGE, M.C. Cantab, F.R.C.S.

[*Medical Chronicle.*]

I was recently summoned to the hospital on a Wednesday evening, to see a woman aged 40, who was in a state of collapse, with great abdominal pain and constant vomiting, which were connected, as she supposed, with the prolapse of a huge mass of mucous membrane from the opening in her left loin, made in lumbar colotomy, five years before, on account of closure of the rectum by syphilitic stricture. Prolapse had often troubled her, but had never before given rise to anything serious. Her history was this: that on the Monday she had eaten indigestible food, which caused diarrhœa on Tuesday and Tuesday night. On the Wednesday morning the prolapse occurred, and immediately she was seized with intense pain, which grew worse as the day wore on, was soon aggravated by uncontrollable vomiting, and which together reduced her to the serious condition noted on her arrival at St. Mary's.

We at once proceeded to anæsthetize her, and examination revealed a protrusion of dark-colored œdematous mucous membrane, which was greatly engorged with blood, and was the size of a fist. It seemed freely movable, and there was no apparent difficulty in properly reducing it, and in then being able to pass a finger into both upper and lower colon. The prolapse, however, returned, and again did so on a third occasion. Closer examination of the mass was therefore necessary, and it led to the discovery of a depression and orifice at the extremity of the protrusion. Into this orifice the finger could be passed for a distance of four inches, until it became arrested by an unyielding ring. The whole lump was, therefore, drawn further out, and the outer side of the ring inspected, when it at once became obvious that there was something more than mere ordinary prolapse of mucous membrane, that the colon itself had protruded out of itself, and that the mass we handled was really an intus-susception of the same, in a condition of marked strangulation. Steadying the neck or aforesaid ring with two fingers, there was now no longer any difficulty in undoing and reducing the intus-susception by gently squeezing its distal part. Thus it quickly was made to disappear, and no longer showed any tendency to descend again.

The only unfortunate thing in the manipulations was the tearing of a small rent in the parietal reflexion of the peritoneum. This was at once closed with sutures, and there was no contamination of the peritoneal cavity. The woman was put on small doses of morphine subcutaneously, but all symptoms ceased from that moment, and bar the necessity of keeping her absolutely quiet for a few days, on account of the peritoneal tear, she was thereafter perfectly well.

A good deal has been said of late on the relative merits of inguinal and lumbar colotomy, and on the best ways of preventing prolapse of mucous membrane at a future time, but no such extreme and curious condition as there was in this case has been recorded. Doubtless the conditions of this particular patient conduced to the formation of a true intus-susception. Five years is an exceptionally long time for any one to live after colotomy, for the simple reason that the operation is commonly done for temporary relief in some mortal disease. During this time there had been frequent prolapse of mucous membrane, while all along the colon itself was becoming increasingly lax and mobile, until everything culminated in the attack of diarrhœa. Then the intus-susception was formed, and all the local conditions tended to keep it up, rather than to help its spontaneous subsidence. In fact, its whole aspect showed how tightly the intus-susceptum was nipped, that it must soon have become gangrenous, and that reduction without help would have been impossible. Her history shows, moreover, with exceptional certainty, how serious and immediate may be the symptoms induced by intus-susception. Instantly after its formation the scene was changed, and the most agonizing pain, with early and incessant vomiting, ensued. It was as if the whole intestinal tract and the whole system resented so unnatural a disposition of the intestinal tube, and made every effort, wildly violent and entirely misdirected it is true, for restoring the parts to their proper state.

Medical Treatment of the Intestines.—In concluding an article on intestinal obstruction, Prof. H. Nothnagel says:

"I may briefly state in one sentence all the treatment I can recommend as an hospital consultant: Absolute abstinence from food; induce the peristaltic action from below; still it from above; and, above all, avoid purgative medicines. Further I know of nothing to add for the guidance of others.

"As regards other methods of treatment, very little can be said, but there are one or two forms of recent origin which I cannot pass without a remark. Washing out the stomach was introduced by Kussmaul as a remedy, but past experience of this form of treatment has nothing particular to commend itself, and has been of very little use. One advantage in using it is that it is a harmless application, and there is not any danger attending its use. The clyster I can always recommend as a most effectual remedy in all forms of fecal accumulations, but it is not suitable for fecal vomiting where there are inflammatory conditions. The object of a large clyster is to break up large fecal masses, but this is to be avoided where there is a tender bowel. Electricity is another remedy which has come into recent favor, and is not without merit. When using this agent it is recommended that both poles be placed over the tender or painful part of the bowel, or one pole introduced into the bowel. The successful cases from this treatment are so few that no opinion can be vouchsafed. There are other drugs, like belladonna, nicotine, and others that might be named, but there is one regularly prescribed drug that might be noticed. There was a time when every case of stoppage of the bowel must be drugged with mercury, but the greater number of the observers of this treatment have spoken very adversely of it. No doubt an individual case has arisen where success may be attributed to the drug, but these are very few, and leave us in grave doubt when it should be used at all. If the tradition of this drug tempts you to its use in any form of vomiting, I beg to consign it to your charge with care, and trust that you will carefully use your own judgment in applying the drug where the least danger exists. In concluding my observations on the medical treatment of the bowel, I feel it my duty to say that the most severe cases that we meet in our daily practice are frequently beyond the reach of our medicines, when arising from locking of the bowel, and properly belong to the region of operative surgery for their relief."—*Med. Press and Circular.*

Surgical Interference in Acute Intestinal Obstruction.—In the *Asclepiad*, May, 1889, p. 103, Dr. Richardson publishes an interesting paper on "Surgical Interference in Acute Intestinal Obstruction," of which the following is the summary:

1. In all cases of acute intestinal obstruction the use of minor measures, such as purgatives, enemata, galvanic irritation, and massage, are, when judiciously used, correct up to the point of the appearance of vomiting of matter of a distinctly fecal character.

2. So soon as this symptom is established there should be no hesitation in opening the abdomen for the exploration of the obstruction and the attempt at removing it.

3. Obscurity of diagnosis in regard to the seat and nature of the obstruction ought not, in the presence of this special symptom, to prevent the resort to surgical interference, because sometimes what is inferred to be a complicated obstruction turns out to be an extremely simple one; and, again, if the obstruction be complicate, it may admit of being relieved without any further serious danger to the patient than would arise from omitting the operation, since the greater the difficulty the more urgent is the demand for interference, and the more certain the death if surgical aid is not afforded. One point of practical diagnosis is specially referred to, viz., the inability of the sufferer to find relief by the passage of flatus *per anum.*' This indicates that the seat of obstruction is either low down in the colon or above the colon altogether, and it tells that the occlusion is so perfect that even under strong pressure gases will not pass it, giving a mechanical proof of the clearest kind that nothing less than mechanical means will give relief.—*London Med. Recorder.*

IMMEDIATE OPERATIVE PROCEDURE IN PENETRATING WOUNDS OF THE ABDOMEN.

By A. F. Cabot, M.D.

[*Boston Med. and Surg. Journal.*]

The practice of immediate laparotomy, without waiting for convincing symptoms of serious intra-abdominal lesion, seemed wise, for the following reasons:—

First: It was felt that the enlargement of the penetrating wound through the abdominal wall added little or nothing to the severity of the injury, and would give the opportunity to discover and repair any lesion of the intestines or other abdominal contents before the occurrence of peritoneal inflammation. The absence of danger in a simple incision into the abdomen is generally recognized.

Secondly: We know that symptoms are often very poor guides to an appreciation of the severity of intra-peritoneal injuries, and if we wait until the patient's condition demands an operation, we shall often find that a serious inflammatory condition has arisen, which we are powerless to stop, even though we may succeed in closing the intestinal wound that gave rise to it.

The cases are as yet too few to determine the ratio of the increased danger in delayed operations, but experiences are not wanting to show that it is very large.

Thirdly: In the event of any considerable vessel being injured it is, of course, important to stop the bleeding early before the patient is seriously exhausted. Here again, if we wait until the symptoms of internal hemorrhage are unmistakable, we shall run a serious risk of letting the patient slip into a condition from which he cannot be recovered.

In view of these considerations it seemed to the writer, and he still thinks it a good rule in practice, that—in a case of penetrating wound of the abdomen, made by a sharp weapon or by gun-shot—the wound should be followed carefully down until the operator is convinced that it enters the abdominal cavity. When this is established the peritoneum should be opened with enough freedom to allow of a sufficient inspection of the abdominal contents, and for the repair of any injury found.

It seems probable that by this immediate operation cases will be saved which would be lost if time were given for the peritoneum to inflame or for serious loss of blood to occur; whereas with proper care in making a clean, aseptic operation the surgeon will rarely, if ever, feel that he has added to his patient's risk by the exploration.

Suspension in Locomotor Ataxy and Atrophy of the Optic Nerve (Galezowski, *Recueil d'Ophthalmologie*, No. 5.)—To Dr. Mötchoutkowsky, of Odessa, is due the credit of having first conceived the idea of treating cases of progressive locomotor ataxy by suspension, but it is to Professor Charcot, who conducted a series of experiments on a large scale, to investigate into the effects produced by this mode of treatment in a different affection of the spinal cord, that it owes its introduction to practice. The treatment consists in suspending the patient for from half a minute to three minutes at a time (four minutes being taken as a maximum) in a Sayre's jacket, the arms being raised every fifteen or twenty seconds, so that the traction on the spinal column may be more equable and more persistent. The results of the treatment were very remarkable, locomotion being much and continuously improved by six or eight suspensions. Romberg's sign and vesical troubles disappeared and the lightning pains were much relieved; finally the sexual power, so markedly absent in cases of tabes, returned in a large number of cases. Charcot remarks that "this method of treatment may be employed with confidence, because it appears to be perfectly innocuous when suitably applied." But, unfortunately, though it has proved of use in abolishing or ameliorating the symptoms named above, it has little or no influence upon the co-existing ocular troubles, it having no effect upon either the optic nerves or motor nerves of the eye-ball. Incontestably, therefore, suspension may be considered to have a beneficial effect upon symptoms depending upon alterations in the spinal-cord, but none upon those consequent upon central lesions. M. Ernest Jendrassik, and with some reason, has attempted to show that ataxy is due to a brain lesion, and not to spinal affection; at any rate, a number of its symptoms, pathological anatomy, and repeated observations by authorities quoted by Jendrassik, seem to show that central lesions, as well as lesions of the posterior columns, are to be found in cases presenting all the essential symptoms of tabes. The lesions found in two cases of undoubted locomotor ataxy were disappearance of the tangential fibres of the brain cortex, with alterations in the nerve cells; these alterations were accompanied by a diminution in the number of radiating fasciculi, by granular bodies, and spots of myelitis. These lesions were specially noted as being present in the inferior and posterior convolutions of the brain. For these reasons Dr. Galezowski comes to the conclusion that the suspension treatment can only be beneficial as regards the nervous troubles depending upon spinal changes, and can have no influence whatever upon central lesions and the morbid phenomena induced by them.—*Med. Chronicle.*

SUTURES AND LIGATURES WITHIN THE ABDOMEN. —The choice of material for sutures and ligatures for the abdominal walls and intra-peritoneal structure is a matter of considerable importance, and one upon which the opinions of leading surgeons in the world are divided. Numerous experiments have been made from time to time, and their results have shown that four or five kinds of material can be used with safety, if certain precautions are used. Practical surgeons have for years used these different varieties with various degress of success. Some recent experiments reported by Dr. Thompson in the *Centralblatt für Gynakologie*, and quoted in the *British Medical Journal*, are interesting in this connection. He rejected silver as an unabsorbable material, and used carbolized catgut, chromic gut, silkworm gut, and silk. All were sterilized, and made as nearly as possible of equal thickness. With a view to the use of sutures in Cæsarean section, rabbits, cats, and bitches, that had recently given birth to young, were chosen. A short incision was made in each uterine crown and united again by a suture, different kinds being used on opposite sides in each case. The omentum and abdominal wound were also sutured. At different intervals the animals were killed and the sutures inspected. We are told that carbolized gut was completely absorbed in seventeen days, little but the knots remaining in ten days. Chromic gut was unabsorbed in sixty-four days. Silk threads were loosened but intact in fourteen days, and almost entirely absorbed in sixty-four days. From these results Dr. Thompson concludes that in abdominal surgery silk is the best and safest material for suture, since it can be thoroughly sterilized, and is slowly but surely absorbed. Chromic gut and silkworm gut are bad because unabsorbable. Carbolized catgut is unsafe because it is too speedily absorbed.—*Editorial in Canadian Practitioner.*

ANTISEPTIC IRRIGATION FOR CHRONIC SYNOVITIS. — The treatment of chronic joint swellings, especially of the knee, is often a matter of discouragement, owing to the unsuccessful nature of the results obtained. Such measures as rest, compression, and aspiration may, and perhaps do, in some few instances lead to a degree of improvement, but certainly the rule is, that the end attained falls short of that which could be desired. A plan of treating such affections which has been occasionally adopted with success is advocated as being worthy of more frequent employment by Dr. M. H. Richardson, of Boston. This consists in first withdrawing from the diseased joint the fluid effused into it by means of an aspiration syringe, and then injecting into it a quantity of a five per cent. solution of carbolic acid, from three to five ounces or more. Massage of the joint is then carried out to ensure that all its structures are brought well into contact with the antiseptic liquid, which is then allowed to escape, aspiration assisting in the process. The returning solution is turbid from the presence of coagulated albumen, which may possibly exist in amount sufficient to block the aspirating needle more or less completely. The joint having been thus emptied, the limb is fixed on a splint and pressure applied. After a few days it is found that pain is quite absent, and the joint scarcely at all full of fluid, while in two or three weeks cure seems to be quite effectual. A plaster of Paris bandage is recommended to be worn for a time. The situation advised for insertion of the needle is the outer side of the joint opposite the upper edge of the patella, and in case a reaccumulation of fluid takes place Dr. Richardson advises that a repetition of the operation should be resorted to, but he insists on the propriety of not adopting it in the first instance unless the less radical means of alleviating the condition of the joint have received fair trial. He reports several cases in illustration of the advantage derived from the proceeding; in all very marked improvement and restoration of usefulness took place.—*Med. Press and Circular.*

COPAIBA IN SURGERY.—H. H. A. Beach, M.D., remarks as follows in the *Boston Med. and Surg. Journal* concerning this drug:

In the long-continued use of copaiba as an internal remedy, its value in surgical dressings may have been gradually lost sight of, until now it lies among the rubbish of forgotton things that excite only the interest of the antiquarian, its connection with a living and progressive art having in some unaccountable way become severed.

Some years ago, while reading the interesting description of "Medical, Surgical and Anatomical Cases," published by Lawrence Heister, in London, 1755, I was much impressed with the importance he attached to the balsam of copaiba in his dressings, and determined to test the drug in that capacity. It was accordingly applied to an indolent granulating surface, by first saturating charpie with the balsam, and after squeezing out the superfluous balsam, bandaging the charpie upon the ulcer. The unusually rapid growth of a handsome bed of rosy granulations, ready for the grafting process, was so clearly attributable to its use, that I continued to employ it, and finally adopted it as regular dressing to granulating surfaces in my hospital wards. It is simple, cheap, quickly prepared, and most satisfactory in its results. Its use has gradually spread to the wards of my colleagues at the hospital, and it is now an accepted dressing; being especially adapted to the flat, pale, granulating surfaces that commonly result from avulsions of the scalp, extensive burns and scalds; also for the cavities after operation for removal of necrosed and carious bone. It has succeeded in raising healthy granulating surfaces for grafting after other stimulating applications had failed. At the hospital it is applied with cotton-waste instead of charpie. The waste can be picked apart and cut into short bits by convalescents. The porous nature of the dressing permits a ready absorption of pus and of its partial disinfection by the copaiba, which imparts a fragrant balsamic substitute for the sourish odor of pus partly decomposed. On the chances that its activity as a dressing depended upon the copaivic acid which it contains, I have also applied that substance with a negative result.

USE OF SUSPENSION IN LOCOMOTOR ATAXIA.—Dr. Lauder Brunton, in one of his lectures on "The Relation Between Chemical Structure and Physiological Action," refers to the remarkable benefit obtained from suspension as one of the most striking discoveries that have been made in therapeutics in recent years. He finds all explanation of it very difficult, but is inclined to think that suspension merely acts on the cord in the same way that massage does upon the muscles, by removing the lymph, and with it the products of nerve waste; while at the same time it may increase the processes of oxidation and repair by free circulation of the blood.—*Canadian Practitioner.*

TREATMENT OF DIPHTHERIA.—M. Guelpa says that there are two essential points which should not escape the attention of the attendant, and these are a proper local treatment and the continuation of that treatment during the night as well as the day. Many medical men were inclined to allow the patient to rest at night, and the motive was easily explained, but temporary suspension was often fatal to the patient. The local treatment should consist almost solely in antiseptic irrigations and in sprays. It is not necessary to resort to every means to destroy the false membranes, and one should be very cautious in the use of caustics, as it has been clearly demonstrated that those agents by excoriating the healthy epithelium favor the propagation of the bacilli. In case of obstruction of the nasal fossa M. Guelpa advised the scraping out of those cavities, and in case of the antrum of Highmore being invaded he would not trephine. M. Lefebre said he agreed with M. Guelpa on two points, the danger of indiscriminate use of caustics, and the necessity of frequent swabbings of the throat. He employed a solution of tannin for irrigation, and was well satisfied with it. Out of seventy-six cases he had only two deaths.—*Med. Press and Circular.*

SANDER & SONS' Eucalypti Extract (Eucalyptol). Apply to DR. SANDER, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Greifswald.

THE INFLUENCE OF MICROBICIDE MEDICINES IN THE TREATMENT OF PHTHISIS PULMONALIS.

[*Boston Medical and Surgical Journal.*]

For a time subsequent to Koch's discovery of the microbic origin of tuberculosis the special attention of experimental therapeutists was directed to the various antiseptic methods which it was hoped might rid tuberculous subjects of the germs whose depredations in the pulmonary textures constituted phthisis pulmonalis. Inhalations took a prominent place; creasote, carbolic acid, sulphuretted hydrogen, eucalyptus,. turpentine, hydrofluoric acid, have all had their advocates and their day. Bergeron's gaseous rectal injections of hydrogen sulphide were given with the same intent, the belief being entertained that the hydrogen sulphide introduced by the rectum would, in being eliminated by the pulmonary mucous membrane, destroy the tubercle bacilli there pullulating.

It must be confessed that the results of the germicide treatment have not been what was hoped. Experiments in the laboratory seemed to have shown that fluorhydric vapors were especially obnoxious to the tubercle bacilli. Hippolyte Martin had signalized the parasiticide effect of this acid, which, in the proportion of 1 per 4,000, appears to be destructive to Koch's bacillus. Jaccoud's laboratory experiments, it is true, were contradictory to those of Martin. Leiter and Garcin, subsequently Gautrelet, puplished papers in which the curative benefits of fluorhydric inhalations were vaunted; but other clinicians failed to confirm these results. Thus, during the course of the last year, Grancher and Chantard undertook a double series of experiments to test the value of fluorhydric inhalations in phthisis. In the first series, they came to the conclusion, "that the action of the vapors of fluorhydric acid on the evolution of experimental tuberculosis is *nil.*" This conclusion was only strengthened by the results of the second series, where they studied comparatively the effects of pure tuberculosis cultures, and of cultures previously subjected to hydrofluoric acid in increasing concentration from ten per cent. up to a state of purity.

Dr. Marcellin Cazaux, in a recent article in the *Journal de Médecine*, well sums up the present state of science, when he says that phthisis is rather a question of a particular *terrain* (culture soil) than of a bacillus. Phthisis is not like syphilis, the virus of which is capable of undergoing evolution in any soil. The micro-organism of tuberculosis does not attack all persons, it selects its subjects. The individual who finds himself in condition about normal of organic equilibrium, resists with success and *burns* the bacillus, when the latter penetrates his air-passages. For this reason, tuberculosis is the least contagious of all the microbe-diseases. In short, "the question of *terrain* [soil] is primordial and fundamental; it occupies the first place in prophylaxis and treatment, and no therapeutist can do good work in combating phthisis who does not set out from this standpoint."

Such being the case, it is evident that the first thing to do in treating phthisis is to modify the culture soil so that it will be refractory to the bacillus. Here the principal reliance must be on reconstituents and tonics. Dr. Cazaux places great importance on "superabundant alimentation, and the greatest possible quantity of pure air." Residence in the open air, when the weather will permit, and especially residence in high altitudes (from 700 to 1,600 metres), is one of the principles of successful treatment. On all suitable occasions, the windows of sleeping-rooms should be left open at night. He remarks that one will tolerate in a horizontal position, and consequently in bed, temperatures which seem severe when one is sitting or standing. Dr. Cazaux cautions against sending to elevated stations patients with advanced lesions and with fever.

The medicinal treatment while not to be neglected, is only of secondary importance; at the same time, under the use of the classical remedies, cod-liver oil, arsenic, creasote, tannin, alcohol, one will often witness an augmentation of weight and favorable modifications in the local signs. As adjuvants, inhalations, now no longer relied on as curative, may produce some ameliorations.

In the discussion which followed the reading of Cazaux's paper (*Socété de Médecine Pratique*, June 6, 1889), there was a general consensus that generous alimentation, exercise in the open air, pulmonary gymnastics in elevated regions, offer the best conditions for obtaining, if not cure, at least the amelioration of phthisical patients. Some were of opinion that inhalations, especially of hydrofluoric acid, possess considerable efficacy, exciting the appetite, diminishing expectoration, and sometimes hæmoptysis, and promoting nutrition. In cases of early phthisis, climato-therapy, and the mineral water cure are often of great utility. The sulph-sodic mineral waters (Eaux-Bonnes), the sulph-sodic-iodo-bromureted (Guyot), and the arseniated-sodic (Bourbole), were especially commended. One speaker (Guelpa) alluded to the "astounding fallacy" of the hot-air-respiration cure of phthisis. Very rigorous experiments have proved that by reason of evaporation, the air which penetrates the lungs immediately undergoes a relative cooling, and the expired air is never 40° C. at the most; the air that enters the lungs is not raised above one degree in temperature, consequently Koch's bacillus, which is arrested in its evolution when the surrounding temperature is above 42° C., is in no way influenced by inspiration of hot air.

Per contra, in Cochin Hospital, hot-air inhalations have been tried with very uncertain results, so that Dujardin-Beaumetz is forced to tell us that we must fall back upon *sur alimentation* and hygiene. "After alimentation in importance comes climate. Oxygenation is the great point, and as much open air as possible, no matter where it is, but best when the temperature is not over 60° F. in winter." "In a word, we have to confess," says Beaumetz, "that we are reduced to alimentation and respiration of pure air in this disease.

THE TREATMENT OF DISEASED TONSILS WHEN UNATTENDED WITH HYPERTROPHY. —At the meeting of the Eleventh Annual Congress of the American Laryngological Association, recently held in Washington, D.C., Dr. John O. Roe read a paper with the above title (*Boston Medical and Surgical Journal*, June 27, 1889). The conditions referred to are of marked clinical importance, but their consideration is ignored by writers upon these subjects. The most common form of the disease of the tonsil is hypertrophy, and in children it is rare to find any other form. During adolescence the tonsils may diminish in size, but they do not return to their normal condition. The small tonsils in adults have often followed hypertrophy. This is a point in favor of the removal of enlarged tonsils. The two forms of disease of the tonsil to which attention is called were—first, chronic disease of the crypts and lacunæ; and, second, fibroid degeneration of the stroma of the organ, the cicatricial form of the disease. The first is the result of chronic follicular catarrh of the tonsil, and is usually associated with chronic follicular catarrh of the pharynx. The treatment of these conditions is important, not only on account of the disease itself, but also because they are the source of recurrent trouble, and may cause reflex symptoms. Local applications are practically useless. The galvano-cautery, which is useful in the treatment of hypertrophied tonsil, may be employed here, but is not as efficient as it is in the former condition. The treatment *par excellence* is abalation with the knife. The diseased crypts may be laid open and cauterized with chromic acid or fused nitrate of silver. Excision is, however, the best plan. It is rarely advisable to attempt removal of the whole mass at one time on account of the adhesions to the pillars. The use of cocaine lessens pain and hemorrhage. In every instance in which the speaker had employed excision the cure had been perfect, with entire relief from the attendant symptoms.

In the discussion which followed, several members present referred to the effects produced by the presence of hard masses in the crypts and lacunæ of the tonsils.—*Coll. and Clin. Record.*

THE TONSILS IN PHTHISIS. — Dr. Dmokhovski publishes in a Polish medical journal—the *Gazeta Lekarski*—some important observations on the condition of the tonsils and the follicular glands at the base of the tongue in phthisical subjects. Strassmann had previously made some observations on the tonsils, and had found them affected in thirteen cases out of twenty-one which he examined. Dr. Dmokhovski was able to show some affection of the tonsils in every one of the fifteen cases examined post mortem, the lymphatic glands at the base of the tongue being also affected in nine of these cases. The lungs were in every instance decidedly affected, and in five there was slight tuberculous ulceration of the larynx. The ages of the subjects varied from eighteen to fifty-six. Presumably the tonsils were infected from the mouth, the bacillary infection at first affecting the epithelial layers and subsequently the deeper tissues—viz., the lymphatic sinuses and the follicles themselves. The tuberculous character of these changes was made manifest either by the existence of large disseminated collections of Koch's bacilli, or by the concomitant signs of general inflammation of the connective tissue, or by the occurrence of fully developed tubercles. These showed themselves first of all in the connective tissue between the follicles along the lymphatic vessels leading to neighboring cervical lymphatic glands. Ulcerations of the tonsils were observed in the crypts, but never on the free surface of the glands; sometimes cavities were found in the tonsils. In the living subject no marked affection could ever be detected by the naked eye in the tonsils. The absence of disposition to external ulceration is explained by the supposition that the deeper tissues form a far more suitable soil for the development of the tubercle bacilli than the superficial tissues,—that is, the mucous membrane covering the surface of the gland.—*Lancet.*

THE OCCASIONAL USE OF SOLUTIONS OF NITRATE OF SILVER IN THE TREATMENT OF CHRONIC LARYNGITIS. —At the meeting of the American Laryngological Association, recently held at Washington, D.C. (*Boston Med. and Surg. Journal,* June 27, 1889), Dr. S. Solis-Cohen reported several cases in which local application of nitrate of silver was employed for the relief of chronic laryngitis, such as occurs so often in singers, clergymen, lawyers, etc., in which, after all discoverable sources of irritation, local and general, have been removed, and approved topical treatment suitable to the individual cases has been faithfully tried for a longer or shorter time, improvement takes place to a certain point and then stops. Perhaps all visible evidences of disease, except an irregular, pinkish striping of the vocal bands, have disappeared, or perhaps there would be a faint uniform coloration, or may be only a loss of lustre, but something there would be that persisted, and that prevented the patient from resuming with comfort full use of the voice in singing or speaking, or perhaps even in ordinary conversation.

It is in such conditions as these—the last obstinate remnants of the disease—that he had derived considerable satisfaction from the topical use, by sponge, cotton-wad, or brush, of weak solutions of silver nitrate, about ten grains to the ounce, applications being made every day for some two or three days until some congestive reaction is produced; after that at longer intervals. In the course of treatment, too, in some cases before reaching the last stage above described, he had found recovery apparently hastened by occasionally substituting stronger solutions of silver nitrate, forty to sixty grains to the ounce, for the iodized glycerine, tannin, tar, or other routine application. A visible increase in congestion immediately follows the use of the silver solution, but this passes off quickly, and at the next visit great improvement is usually manifested. These applications are made once in about two or three weeks, according to circumstances.

MODIFICATIONS OF EGG-ALBUMEN.—A Russian medical man discovered some time since that the eggs of various species of birds contained different kinds of albumen. For instance, the eggs of birds which are born naked, blind, and incapable of co-ordinate movement, contain an albumen which remains transparent after coagulation by heat, and readily imbibes water, becoming swollen and very easily digestible. This transparent albumen is called *tata,* and is much used in some countries in feeding the sick. The eggs must be fresh, for in the course of a few days, if left in contact with the yolk, the albumen is changed into ordinary albumen and becomes opaque on boiling. The most interesting and practical feature of these observations lies in the discovery that if fowls' eggs in their shells are treated with caustic-potash or soda the albumen is converted into this transparent variety. Thus modified, the product may be dried and powdered, and keeps good for years. It contains thirteen per cent. of nitrogen, and in water swells up to twenty-five times its original volume. It is quite tasteless, and can, therefore, be mixed with chocolate, coffee, etc., without detriment to their quality, or may be made into gruel or added to beef tea. Moreover, the gelatinous mass which results can be readily made into jellies and suitably flavored. The powder has been tried extensively in Russia both on the healthy and the sick, and appears to have proved very satisfactory. As the mode of preparation is simple, *tata* would appear to constitute a valuable addition to the dietary of the sick and ailing.—*Med. Press and Circular.*

LIME AS A DISINFECTANT. — In the search after disinfectants, the efficacy of which is not always directly in proportion to the complexity of their chemical constitution, one seems to have lost sight of the valuable properties of substances at once cheaper and more accessible. Lime, for instance, has been shown to possess remarkable power in controlling the further development of the typhoid or cholera bacilli, and even two per cent. of lime in water is stated to be an effectual germicidal agent. Bacteriological experiments, conducted by different observers, have shown that a four per cent. solution of lime completely disinfects typhoid stools within half an hour, a result which was not obtained with either chloride of lime or corrosive sublimate. The best form to employ is the "milk of lime" prepared by slaking a kilogramme of freshly burned lime and then adding sufficient water to make up twenty per cent. This ought preferably to be recently made, its activity diminishing after the lapse of a day or two. Only liquid stools admit of disinfection by this method, which has the advantage of being almost costless and devoid of an odor of its own. It has been proposed to use lime on a large scale for the disinfection of cesspools and sewers.—*Med. Press and Circular.*

JOY AMONG THE CONVICTS.—The prisoners at Sing Sing are said to have sent up a shout of joy when they heard the bill permitting them to go to work had become law. For a year they have been idle, in consequence of the Yates' Bill, and sickness and lunacy have been more frequent than ever in the history of the prison. Largely through the efforts of the State Charities Aid Association the Fassit Bill has been passed, permitting the prisoners to go back to the shops. Work in the factories will be resumed in a short time, and the prisoners are themselves hard at work putting the machinery and shops in order. The testimony of the physicians and keepers shows that the prisoners have suffered to a surprising degree, both in body and in mind, from their enforced idleness.—*N. Y. Med. Jour.*

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.
TERMS, $3.50 PER ANNUM IN ADVANCE.

☞ All letters and communications should be addressed to, and all checks, drafts and money orders made payable to
DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, August 31, 1889.

The Week.

SIGNS OF PROGRESS IN EDUCATION.

SINGLE OR DOUBLE DAILY SCHOOL SESSIONS?

The twenty-third annual session of the Cincinnati Teachers' Institute will be held in Woodward Hall, September 3, 4, 5, and 6.

In the program we notice that five members of the Faculty of the Cincinnati University are assigned places and subjects. This is as it should be, and as it should have been long ago. The University professors must take their places in line as filling important positions in the public educational system of the city. Occupying the most advanced stations, they must come forward and stay in the van as the actual leaders. It has been none to their credit in the past that they dignifiedly assumed that because they were professors in the University it was beneath them to appear with the common horde of teachers in their institutes, and we congratulate them on the limbering process that has taken place. It will do them good; it will encourage the boards of trustees of the University and of the schools, and will greatly benefit the teachers. Our congratulations are extended 'all the way round. It is hoped that other members of the University Faculty are down on the program of other teachers' institutes.

We are exceedingly well pleased to note that Drs. Forchheimer and Hyndman of the Medical College of Ohio Faculty have a place on the program with appropriate subjects—the former on "Hygiene and its Relation to School Curriculum," and the latter on the "Voice: Its Cultivation and care."

It is very desirable that the subject of single and double daily school sessions shall be brought up and thoroughly discussed. The double daily session is held in the district and intermediate schools, which carry the children along to the ages of twelve to fourteen — the period of puberty—when with eager ambition the high schools are entered, where at this most important and critical period of their whole lives the pupils have forced upon them an educational process that by the end of the first high-school year reduces their number about fifty per cent. Why this wonderful reduction in numbers? And where the responsibility and cause? A little investigation will enable the most obtuse to discover a correct answer to these inquiries. The physical change that is taking place in the boys and girls must be borne in mind. These boys and girls have up to this time almost uniformly led regular habits of life. They have had three regular meals every day, and at the proper divisions of the day—in the morning, midday, and evening. Abundant time has been given to eat and for relaxation and amusement. The high school is reached with health of body and mind; neither impaired by confinement, course of study, or lack of nourishment. Here a radical change is made and demanded of the pupil. But one daily school session is held. That session is made to practically extend from a few minutes after 8 a.m. to nearly 2 o'clock p.m., with an intermissson of twenty minutes at 11 o'clock, ostensibly to allow the children to relieve the now urgent and most pressing wants of nature. At once a rush is made for the water-closets, where one after another files in, so that on an average more than half of the twenty minutes recess is taken up with standing around the odorous water-closet. No time for play or lunch, but back they are hurried to the school-room for a continuation of the day's grind until the hour for dismissal, at 1:30 to 2 o'clock, is reached, the last two hours on an empty and famished stomach. Then it takes from a half hour to an hour for the pupils to reach their homes. The other members of the family have had their dinner, but the high school member is not forgotten, and a portion is set aside for him or her. This has either become cold or been set in the oven to dry up; in either case it is only the ravenous appetite of a growing animal that makes it palatable. Moreover, the meal, indigestible as it may be, is partaken of in silence and solitude. Restraint in eating—there is none. Meat and all sorts of edibles are bolted—literally shoveled into the ravenous maw. The digestive apparatus now has a task that may only be possible to the out-door laborer of mature years. The gulping process ended, a pile of books is unstrapped for home study. The mind is lethargic because of the imperative demands of the stomach on the physical resources, but the cramming process must go on. Supper time is reached, with no appetite. At the urgent solicitation of a watchful mother the child partakes of a few mouthfuls of food, usually the desert and nothing more. Then the study of some accomplishment is taken up until bedtime. Often a restless, dreaming night is passed, and the child gets up in a fretful mood, but in a hurry for a few mouthfuls of breakfast in order to get off to school in time.

This is no fanciful or exaggerated

sketch of the day's doings of the boys and girls in the high schools. Every line is literally true, with this addition: that very often, in place of being allowed to go home at half past one to two o'clock, the entire class is hustled off to the Natural History Society Buildings for a drill and exposition of subjects taught in the school building. This is said to be optional to the pupils, but is given out in such a manner as to make the pupils realize that their per cents are at stake and they had better go. So the poor, famished, empty stomach of the now headachy child is hushed by the natural will force of the strongest of the boys and girls. Those who are not blessed with the most perfect physique are made to feel that they have not the time to spare to complete a high school or university education, and beg of their parents for leave to obtain "a situation." In fact, they actually realize that the prize is not worth the cost, that cost being measured by the standard of physical endurance capacity.

Here is the main cause of the disappearance of fifty per cent. of the high school pupils by the end of the first year.

From personal observation it has seemed to the writer as if the teachers in the high schools actually lose sight of the fact that the schools belong to the entire people, and should be conducted for the greatest benefit to the greatest possible number. Urging, cramming, driving their pupils as a jockey would a horse in a race, with this great difference: the horse is driven at his utmost speed for much less than an hour, two or three times a week only; the remainder of the time he is groomed, fed, and exercised in the most careful manner. To drive at a high rate of speed six to eight or more hours per day, with irregular feed and exercise would very soon break down the most promising colt that was ever led upon a track.

We would have teachers understand that when the physical and mental forces of the child begin to lag or weaken, the cause must be carefully sought; and in nearly every instance they will realize the positive wickedness of applying a stimulant in the way of extra hours of study in order to make them keep up with their more vigorous fellows. Nine times out of ten it will be discovered that the child needs more rest, more recreation, and very much less drive. In fact, such boys and girls often need to be actually held up, tided over and through their struggles from time to time in order to enable them to attain the goal of their ambition. Those boys and girls who are not blessed with a perfect and rugged physique and mental capability to learn with ease should receive more individual care and attention on the part of the teacher, who should not practically rid themselves of teaching the weak and perhaps dull scholars by the alternate cram and starvation process which is now practically in vogue. We urge a more watchful care of the weak and those who are noticed to lag and struggle to keep up with their studies. Whenever a boy or girl begins to talk of "a situation," it's a sign, and the motive must be sought.

We would consign the single-session-a-day system to the past, as belonging to the Dark Ages, and in the future forever wonder how men with the ordinary understanding of boy and girl nature were ever induced to introduce and continue for so many years a system that is absolutely inhuman. The responsible authorities should not allow the opening of another school year with the single day session system.

The annual falling off of fifty per cent. of the pupils in the first high school year should long ago have attracted attention and the seeking of an effectual remedy.

An encouraging sign of progress which we note with a great deal of pleasure is that the newly-elected Superintendent of the public schools of Cincinnati is thoroughly alive to the iniquity and inhumanity of the single school session per day system, and assures us that he will use his influence in an active effort to have a change brought about as speedily as possible.

Another encouraging sign of progress given by Superintendent Morgan is the statement that he will make an effort to absolutely harmonize the courses of study in the high schools and University, so as to bring them more thoroughly into one complete system. This should have been done long ago, but as it was not done we would speed the good work and give Superintendent Morgan a helping hand.

DISPOSAL OF THE SPUTA OF PHTHISIS, DIPHTHERIA AND OTHER INFECTIOUS DISEASES.—This may be thoroughly accomplished by the use of Japanese paper napkins, which, after use, may be at once consigned to the fire. The napkins are made of very soft, fibrous tissue paper, are inexpensive, and may usually be obtained in notion and stationery stores. Ordinary tissue paper is an excellent substitute, is kept in nearly all stores, and may be cut in sizes to suit the patient; it is not quite as soft as the Japanese paper, but answers the purpose much better than handkerchiefs and cloths. The destruction by fire secures an effectual and final disposal of all bacteria and microbes; besides, the method is conducive to cleanliness. In the dressing of wounds this soft paper serves an excellent purpose, and should constitute a part of the armamentarium of the surgeon.

THE *Medical Record*, of New York, has in the current number a paper on the Brown-Séquard theory by Dr. Henry P. Loomis and an editorial as well, both pronouncing the so-called elixir a humbug. The *Record* was a little slow but it got there at last. Dr. Minor, in the Cincinnati LANCET-CLINIC, took precisely the same ground at least three weeks ago.—*Times-Star*, August 26.

The LANCET-CLINIC keeps its readers informed of the current medical news of the day on time.

MARKLEY.

Forty years ago our city attained the proud distinction of being recognized as the metropolis of the great State of Ohio and of a major portion of the rich and populous Ohio Valley.

With a rapidly increasing population came the necessity of a home for homeless children and children of vicious and incorrigible dispositions. The want was met in the erection, some distance out from the environs of the city, of such a home, which was designated as the House of Refuge. Unfortunately, the architectural design of the main building gave it the external appearance of a jail or penitentiary. This very appearance led nearly every one to believe the Refuge to be solely a place for the confinement and punishment of convict children. Only a very few people at any time have had any other information or idea of the place and its purposes than the one mentioned. Inside those great forbidding stone walls, battlements and grated windows there have shone many of the very brightest rays of God-given sunshine.

Notwithstanding the evil associations and frowning external appearance, the House of Refuge has afforded a comfortable home, with a good moral and intellectual training, to many hundreds of boys and girls, a goodly number of whom have left the Refuge to become honorable and honored men and women.

During all these forty years the Refuge has annually received an increasing number of inmates, until it is now very much crowded beyond its reasonable capacity. On this account its managers are no longer able to conduct it for the greatest possible benefit to those who enter its portals.

At an early day increased accommodations must be provided, which leads to our

SUGGESTION

That this be done by transferring the

Refuge to the Directors of the City Workhouse, which institution it adjoins and for which purposes it is as well adapted as if erected with that end in view, and the establishing of the village of

MARKLEY

For the children of the Refuge. The location of the village is eleven miles east from the city and on the north bank of the Ohio River. The site has a river frontage of one mile in extent, and extends back from the river a mile. This area has a fair proportion of rich alluvial bottom land, which is well adapted for gardening and farming purposes; the remainder and larger portion is of hill and upland, that affords excellent building sites and pastures for the village dairy.

The homes for the children should consist of frame and brick cottages, built from a variety of designs, avoiding uniformity of style, but all alike in convenience for internal home-like equipment and furnishing. Each cottage should be constructed to accommodate a family of from ten to twenty citizens. The resident population will be mainly citizens of ages ranging from one day to twenty years. From time to time new cottages should be built, as the exigencies of an increasing population may demand.

In the very beginning a special board of commissioners should be created, consisting of a physician, an architect and an engineer, who should properly lay out the ground for the village. Plan the thorough drainage of the entire area, lay out the streets, avenues, lanes, fields and lots, not forgetting grounds for recreation and amusement; draw elevations and working plans for all the buildings, which should in turn be submitted to the board of directors and mayor of the village for approval.

Markley will be supplied with filtered water, and in sufficient quantities for the extinguishing of an accidental fire should it be possible for such a thing to occur, for garden and lawn irrigation, and for all the domestic animals of the village. All the buildings in the village will be heated by gas and coke, and lighted by electricity. All excrement will be either burned or received in dry earth closets, from which it will be conveyed every day to the compost heap, for final distribution over the farm-land. All sewage will be utilized for fertilizing purposes, and care taken that no deleterious substances are allowed to find their way to the river.

Markley will have a mayor who will be the chief executive of the village; he will also, *ex officio*, exercise the functions of village magistrate. The directors will constitute the council, with power to elect village officers and enact the laws and ordinances necessary for the village government.

There will be a graded school, where all the citizens will be required to attend for three or four hours five days in the week. There will be a manual training school with shops, where all citizens will be taught the use of tools and implements, and, so far as practicable, will be required to manufacture and repair the various articles used in the village; for it is desirable that the citizens shall be taught the virtues and benefits of industry, so as to make themselves not only self-sustaining, but that their work may in time become a source of emolument and profit to the village citizen, so that on attaining their majority and in taking their final departure they may do so with a purse filled with their own earnings.

There will be a village chapel, where moral and religious services will be held and where lectures may be given, and in connection with which there will be a well-selected library and a reading-room.

Home government and family training will be universal in the village of Markley. All citizens must enter the village on the recommendation and certificate of one of the judges of Cincinnati or of Hamilton county. Children will not be received into citizenship who are certified as convicts or criminals. Homeless, disobedient, mischievous, and incorrigible children should not be branded in their very infancy as of the vicious and criminal class. Children should not be regarded as capable of crime, but that by reason of their surroundings, temptations, examples, teachings and circumstances, may commit misdemeanors; whereas, if placed under other and diverse conditions, such as would be found in Markley, they would ever be honorable, honest, truthful and upright in all their dealings.

The village will receive a daily visit from a physician, who will carefully watch over the health of the citizens, and every week once, or oftener if he may deem necessary, inspect the sanitary condition of every cottage and building, with their surroundings.

All citizens of Markley will be placed under the most favorable conditions for the development of healthy, moral men and women. Degradation and vice, so far as possible, will be eliminated from the people of Markley. In this village, refinement, moral and intellectual culture will go hand in hand with physical training and development.

Boys and girls are not by nature criminals or vagabonds, but by association, surroundings and circumstances may and do become members of the criminal classes and social outcasts. Wherever and whenever found in such conditions, it is wise and prudent for the municipal or state authorities to provide channels, ways, and means that will reclaim and guide such boys and girls to the plane of a better and more useful life. It is the part of wisdom to expend a small amount of money in the preservation of innocence, rather than a very much larger amount in the payment of additional wages to a larger police force, more judges, juries, sheriffs, deputies and all other court expenses that are entailed, including extra room in the jails, workhouse and penitentiary, with their retinue of officers and their support in caring for the criminals, who might, under diverse conditions in childhood, have become useful citizens.

Every member of the criminal class and of the great family of social outcasts costs the city or state, all the time, the wages and services of an able-bodied policeman or the equivalent, to watch and guard them. In fact, if we count the salaries of judges and other court costs, interest on value of property used for their purposes exclusively, every member of the criminal class costs the equivalent of the wages and services of two policemen.

It would not have cost the city or state one-tenth of this enormous amount to have preserved the innocency of nearly all these criminals. The old adage is very trite just here, "that an ounce of prevention is better than a pound of cure." Rarely does a criminal begin his or her career after arriving at mature years; the life of the outcast is nearly always begun before or in the teens. Still more rarely may a criminal be found who has had a liberal education, or who has had a manual training in the mechanic arts. We know there are such instances, but the number is not as one in a hundred when compared with the absolutely vicious, who are vicious because they are ignorant.

Prophylaxis is the only sure and sovereign remedy for the prevention of crime and vice. Let it be tried at Markley, and the results will establish all that is claimed for it.

AN EXPECTORANT POTION. — The *Union Médicale* of July 11 recommends:

℞.—Powdered ipecac,	grs. v;
Oxymel of squill,	f ʒvss;
Syrup of ipecac,	f ℥j;
Infusion of senega,	f ℥iijss.—M.

Make potion.

Sig.—Give in teaspoonful doses. It will facilitate the expectoration of mucus and relieve bronchial inflammation.—*Med. News.*

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending August 24, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	...	...	...	...	...	...	...	...	...	...
2nd	...	...	...	...	...	...	...	...	...	...	...
3rd	1	1	...	...	...	1	4	1	...	1	...
4th	...	...	...	...	6	...	...	...	...	1	...
5th	...	...	...	...	...	...	...	...	...	...	...
6th	...	...	...	...	...	...	2	1	...	...	...
7th	...	...	...	...	...	...	...	2	...	...	...
8th	...	...	...	...	...	...	...	...	...	...	...
9th	1	...	...	...	...	...	...	...	...	...	...
10th	...	...	...	1	...	...	1	...	...	...	...
11th	1	...	...	...	...	...	1	1	...	...	...
12th	...	...	...	...	...	...	6	...	...	...	...
13th	1	...	1	...	...	...	...	...	...	...	...
14th	...	...	...	...	...	...	1	...	...	...	...
15th	...	...	...	...	...	...	...	...	...	...	...
16th	...	...	...	...	...	...	...	...	...	...	...
17th	...	...	...	...	...	...	1	...	...	1	...
18th	...	...	...	...	...	...	...	...	...	...	...
19th	...	...	...	...	...	...	...	...	...	...	...
20th	...	...	...	...	...	...	2	1	...	...	1
21st	1	...	...	...	...	...	...	...	...	...	...
22nd	1	1	..	...	...	...	...	...	...	...	...
23rd	...	...	...	...	...	...	1	2	...	...	...
24th	..	...	...	...	...	...	...	...	...	...	...
25th	...	...	...	...	...	...	...	...	...	1	1
26th	...	...	...	...	...	...	...	...	...	...	...
27th	...	...	...	...	...	...	...	...	...	...	...
28th	...	...	...	...	...	...	...	1	...	...	...
29th	...	...	...	...	...	...	...	...	...	1	...
30th	...	...	...	...	...	...	2	...	...	...	...
Cin. Hosp.	...	...	...	...	...	...	...	1	...	...	...
Betts-street Hospital	...	...	...	...	...	...	...	...	...	1	...
Marine H.	...	...	...	...	...	...	...	...	...	...	...
Totals	6	2	1	1	6	1	21	10	...	6	2
Last week	3	4	5	1	4	2	16	5	...	3	...

The following is the mortality report for the week ending August, 24, 1889.

Croup	2
Cholera Infantum	7
Cerebro-spinal Meningitis	2
Diarrhœa	6
Dysentery	1
Diphtheria	10
Entero-Colitis	3
Measles	2
Scarlatina	1
Typhoid Fever	6
Whooping Cough	1
Other Zymotic Diseases	2—43
Cancer	2
Phthisis Pulmonalis	12
Other Constitutional Diseases	5—19
Apoplexy	1
Convulsions	2
Heart Disease	2
Liver Disease	3
Peritonitis	3
Pneumonia	5
Other Local Diseases	16—32
Premature Birth	5
Other Developmental Diseases	8—13
Accidental	8
Deaths from all Causes	115
Annual death rate per 1000	18.40
Deaths for corresponding week in 1888	119
Deaths for corresponding week in 1887	118

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 34 observers (embracing 30 counties) show the following diseases to prevail for the week ending Friday noon, August 23, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Diarrhœa	18	60
Cholera Morbus	17	32
Dysentery	14	29
Typhoid Fever	11	26
Remittent Fever	10	22
Bronchitis, acute	10	16
Cholera Infantum	8	21
Intermittent Fever	8	19
Rheumatism (acute)	8	8
Tonsillitis	7	13
Typho-Mal. Fever	6	11
Erysipelas	6	7
Scarlet Fever	4	11
Whooping Cough	3	4
Pleurisy	3	3
Diphtheria	2	2
Consumption (Pul.)	2	2
Measles	1	2
Pneumonia	1	1
Cerebro-Spin. Men.	1	1
Puerperal Fever	0	0
Croup, membranous	0	0

REMARKS.

Diphtheria reported by observers at Lee and Miltonsburg. Reported by health officers: Cincinnati, 10 deaths; Toledo, 6 cases, 2 deaths; Columbus, 8 cases; Dayton, 4 cases; Middletown, 3 cases, 2 deaths; Youngstown, 2 cases, 2 deaths; Zanesville, 1 death; Elyria, 2 cases; Perrysburg, 1 case.

Scarlet Fever reported by observers at Rio Grande, Bowling Green, Kalida, and South Salem. Reported by health officers: Cincinnati, 1 death; Columbus, 3 cases; Toledo, 2 cases; Salem, 1 case; Youngstown, 2 cases; Woodsfield, 3 cases; Ironton, 1 case; Perrysburg, 4 cases.

Typhoid Fever reported by observers at West Milton (10 cases), Milford, Rio Grande, Prospect, Elmore, Lee, East Cleveland, South Salem, New Lexington, and Martin's Ferry. Reported by health officers: Piqua, 8 cases; Cincinnati, 6 deaths; Perrysburg, 5 cases; St. Paris, 2 cases; Rocky Ridge, 5 cases; Millersburg, 1 case; Bluffton, 1 case; Delphos, 5 cases, 1 death; Conneaut, 1 case; Milford, 1 case, 1 death.

C. O. PROBST, M.D., Secretary.

CONTRACTION OF PIGMENT CORPUSCLES.—The variation in color produced by contraction of pigment corpuscles in the frog has been alluded to by Edward Jenner in connection with the occurrence of rheumatism, as well as with the swelling of dry wood under the influence of an atmosphere laden with moisture. In his poem on the signs of rain he says:

"Hark! how the chairs and the tables crack;
Old Betty's joints are on the rack;
The frog has lost his yellow vest,
And in a russet coat is dressed."

The dark color is due to the extension of protoplasm containing dark-colored granules throughout the cell, while the yellow color results from contraction of the protoplasm drawing the granules together into a compact clump, and allowing the yellow color of the subjacent cells to appear.—*The Croonian Lectures.*

BLACK EYE. — There is nothing to compare with the tincture or a strong infusion of capsicum annuum mixed with an equal bulk of mucilage of gum arabic and with the addition of a few drops of glycerin. This should be painted all over the bruised surface with a camel's-hair pencil and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted, this treatment will invariably prevent the blackening of the bruised tissue. The same remedy has no equal in rheumatic sore or stiff neck.—*N. Y. Medical Times.*

ANTIPYRIN IN ENURESIS.—The *Prager med. Wochenschr.* of July 3 says that Drs. Perret and Devic have used antipyrin with great success in the treatment of enuresis. Two doses of ten or fifteen grains, given one at six and one at eight o'clock in the evening, had the desired effect. The continuance of the treatment was only necessary for a few days.—*Med. News.*

THE recent Legislature of Texas voted $50,000 for the establishment at Galveston of a medical branch of the State University.

CAUSES OF THE LOCAL RECURRENCE OF CARCINOMA AFTER AMPUTATION OF THE MAMMARY GLAND.

[*Pittsburgh Medical Review.*]

Dr. Heidenhain, of Berlin (*Münchener Med. Wochenschrift*, 19, 1889) has investigated this matter and microscopically examined eighteen specimens of carcinomatous breasts, which Prof. Kuester had excised, for the purpose of determining if any of the glandular structure or neoplastic tissue had been left in the wound and in what portion thereof, from which the disease might recur. In twelve cases he was able to prognosticate recurrence in the cicatrix or its immediate vicinity, because his examination proved incomplete removal. Of these twelve cases, eight have already become subjects of the recurring disease, and one other has passed from his observation. In six cases he pronounced a radical cure since all diseased structures had been removed. So far they have been immune from recurrence. Recurrence is due, almost without exception, to retention upon the surface of the pectoralis major of particles of diseased tissue, even though they be of size which the naked eye cannot see. This surface is covered by the fascia pectoralis, which is very thin and so indefinite in its limitation, particularly in fat subjects, that it is often impossible to remove it without leaving shreds of connective tissue, unless a thin layer of muscular tissue is removed along with it. In lean subjects the gland *in toto* lies immediately upon the muscle, while in fat women there are glandular portions which dip into the underlying adipose tissue, so that it easily happens that small fragments of the gland are left upon the muscle Every mammary gland in which there is a carcinomatous induration is diseased to a very great extent, if not totally. Heidenhain bases this assertion upon his microscopical preparations, since he discovered that throughout the gland proliferation of the epithelial cells of the acine had occurred, with concomitant peri-acinal connective tissue proliferation. In the retro-mammary fat, along side of the blood-vessels and running from the mamma to the underlying fascia, there are lymph-vessels; these Heidenhain found filled with cancer cells in two-thirds of his cases. By this pre-existing route, then, the proliferating epithelial cells pass through heavy layers of fat to the muscles beneath, so that, as a rule, carcinomata which are yet freely mobile have already reached the muscle surface. The pectoralis major itself is intrinsically affected only when induration reaches it by continuity or metastasis. The muscular contractions favor the dissemination of cancer cells by forcing them through the lymphatics.

The practical deductions which Heidenhain bases upon these observations are calculated to improve the results of operations of extirpation of the mammary gland for carcinoma. He urges the necessity of complete removal of the gland, together with a layer of the pectoralis major, when the carcinoma is freely mobile; but if the latter should be bound down to the muscle by the zone of infiltration, he insists on the total extirpation of both gland and muscle, so that if possible not a fiber of the latter remains.

COCAINE IN THE TREATMENT OF AFFECTIONS OF THE URINARY ORGANS.—M. Lavaux remarks on the advantage of the employment of injections of cocaine in cystitis accompanying stricture, that the strength of the solution should not exceed four per cent., and a tablespoonful of this solution should be injected at the time in order to anæsthetize all the mucous membrane of the bladder. The injection should be made without the catheter. The injection of cocaine is also useful in certain forms of cystalgia and vesical neuralgia, and in the spasm of the membranous portion of the urethra in stricture. It should be added that cocaine provokes a persistent desire to micturate frequently, and sometimes this becomes annoying to the patient.—*Med. Press and Circular.*

A NEW ANTHELMINTIC.—Dr. Parisi accidentally discovered that the cocoanut possesses anthelmintic properties. Two hours after eating the endocarpium of the nut and drinking the juice he felt slight nausea, gastric disturbances, and slight diarrhœa. On the following morning he passed a large tænia, with the head attached. Thinking that perhaps the cocoanut had led to this result, he made inquiries as to whether similar success had ever been attributed to the use of the cocoanut, but without obtaining any satisfactory replies. He then repeated the experiment on his patients in Athens; in six cases he noted success in producing the evacuation of the tænia. Should Dr. Parisi's results be confirmed, the cocoanut is to be preferred as an anthelmintic from the fact that it needs no previous preparation, and on account of its freedom from disagreeable taste, etc.—*Schmidt's Jahrbücher.*—*Therapeutic Gazette.*

PERU BALSAM AS A GERMICIDE.—The recent and remarkable results obtained by Landerer with balsam of Peru in the treatment of tuberculosis, have led Drs. Bräntigam and Nowak (*Wiener med. Presse*, July 7, 1889) to make a careful test of the germicidal properties of the drug. Their results are as follows:

1. Pure balsam of Peru will kill microorganisms inside of twenty-four hours.

2. Emulsions of the drug, up to a strength of twenty per cent., exerted no specific effect either upon the development or growth of bacteria upon which they were tested (cholera, anthrax, green pus, and subtilis).

3. The beneficial actions of the drug are probably due to its influence upon ptomaines.—*Med. News.*

CAMPHORIC ACID AS AN ANTISEPTIC.—Camphoric acid is produced by oxidation of camphor by means of nitric acid, and occurs in colorless rhombic crystals or needles. It is very slightly soluble in cold water, much more soluble in hot water, and readily soluble in alcohol, ether, and fixed oils. The solutions should, therefore, always contain a certain amount of alcohol. The author has employed camphoric acid with much success in various diseases of the fauces and larynx. It is an excellent astringent and antiseptic even in weak solutions, and has no poisonous properties. In tonsillitis a one to two per cent. solution as a spray or gargle is much more efficient than chlorate of potash, borax, etc., and if used early may prevent suppuration. Ulcers of the mouth, nose, pharynx, and larynx, of a tubercular or non-tubercular character, are healed rapidly by applications of two to six per cent. solutions, and small wounds, ulcers, and eruptions of the skin are also benefited by this treatment.—*Med. Review.*

METHYLIC CHLOROFORM AND THE SO-CALLED METHYLENE BICHLORIDE.

[*Therapeutic Gazette.*]

The organic lesions which contraindicate the use of chloroform as an anæsthetic are well recognized, but a certain number of accidents follow its use which are only attributable to individual susceptibilities or peculiarities, which may escape our most careful examination. It has been recently affirmed that *pure* chloroform never kills; but death by syncope may be produced by any anæsthetic, no matter what precautions are taken by the physician. But, aside from these fatal accidents, consequences may occur which are but little less serious; thus vomiting, which may occasion the most dangerous intestinal hernia after laparotomy, or cause the tearing out of stitches after various abdominal operations. This latter class of accidents appear with more justification to be attributable to the impurity of the chloroform, for they gain in frequency when the anæsthetic contains other alcohols than the methylic alcohol. We have already, in the *Gazette* for December 15, 1887, and January 16, 1888, alluded to the use of methylene chloride as an anæsthetic, where we called attention to the preparation employed by Spencer Wells as an anæsthetic in his ovariotomy cases, showing that this was not by any means pure methylene chloride, but was a mixture of one part of methyl alcohol and three or four parts of chloroform. This mixture of chloroform and methylic alcohol was recommended by Drs. Eicholz and Genther as preferable to chloroform, as possessing less toxicity and equal narcotic power; and less dangerous, from the fact that it influences the circulation and respiration to a less extent than chloroform, a fact which is in support of the generally recognized principle that in the various chlorine compounds the danger is in direct proportion to the percentage of chlorine. M. Polaillon recently read a memoir before the French Academy of Medicine (*La Pratique Médicale*, July 2, 1889,), in which he communicated the results of his experiments with methylic chloroform (four volumes of chloroform containing one volume of methylic alcohol). He was led to the employment of this anæsthetic through the fatal results which recently followed at his hands the employment of chloroform as an anæsthetic; and he has now employed this methylic chloroform in seventeen different instances in women. In two of these the anæsthesia was incomplete, while in fifteen others the sleep was very satisfactory, and might have been readily prolonged indefinitely without inconvenience. Vomiting occurred three times after wakening, once during the narcosis, and in this case the vomiting produced prolapse of the intestine after a laparotomy. He believes, however, that the sleep produced by methylic chloroform has advantages over that due to ordinary chloroform—the awakening is much more easy, and the discomfort much less. He contends, therefore, that it might be substituted with advantage for ordinary chloroform. Polaillon has likewise employed this agent in ten operations on the male subject; in four cases it was not possible to narcotize the patient, although the attempt was persisted in for more than half an hour. In one case, at the end of seventeen minutes, there was only reduction of sensibility without anæsthesia. In another case, twenty-three minutes after the commencement of administering the anæsthetic, symptoms of asphyxia were noted, and necessitated the performance of tracheotomy. In four cases the anæsthesia was complete, once in ten minutes, one between ten and fifteen minutes.

He, therefore, concludes, that in man the action of methylic chloroform is very slow, that many subjects are rebellious to it, but that the narcosis is very satisfactory when once the anæsthesia is obtained. It thus seems that the slowness of methylic chloroform, and its unreliability in producing narcosis, is a great drawback to its use, and the question arises whether this slowness is counterbalanced by its freedom from danger. Here, of course, a large number of observations are necessary before a reply can be given. It does not seem that we can hope for an affirmative, for in one of Polaillon's cases asphyxia is stated to have occurred. Polaillon, however, believes that it is much less dangerous than pure chloroform.

In the discussion which followed the reading of his paper, M. Le Fort (*Le Progrès Médical*, June 29, 1889) stated that he had employed this methylic chloroform for six years without a serious accident, and that on awakening from the narcosis the patient is not, as is so often the case with chloroform and ether, in a state of agitation for the rest of the day. He likewise prefers it to the pure chloroform.

THE ADMINISTRATION OF CHLOROFORM BY GAS-LIGHT.—As is well known, it has been the practice to avoid the use of ether for anæsthetic work if artificial light is needed, whenever there is fear lest the ether vapor mixed with air be heated sufficiently to explode. The heavier vapor of chloroform, in addition to not being able to form an explosive mixture with common air, is far less inflammable, and so has been hitherto regarded as a safe anæsthetic in such cases, at least as far as dangers from fire are concerned. Recent researches undertaken by Dr. Iterson, however, seem to show that chloroform vapor, when allowed to mix with the products of combustion of ordinary coal gas, undergoes decomposition and liberates gases of a most irritating nature. Dr. Iterson believes death has been brought about in one case at last by inhaling the noxious vapors, and recounts other instances in which alarming symptoms have supervened. One patient, although apparently but little affected while inhaling the chloroform, became painfully dyspnœic afterward, gasping and evincing the usual symptoms of asphyxia due to irritant vapors. These alarming effects passed off when the windows were thrown open and the fumes of coal-gas combustion and chloroform were permitted to escape.

It is well known that samples of chloroform which have been kept exposed to diffused light will after a while become contaminated with chlorine and acid substances, which possess most irritating properties; but until Dr. Iterson's warning arrived, we were not aware that chloroform vapor would, when diffused in the air of a room or operating theater, be decomposed in passing over a jet of ignited coal-gas. We know that, heated to redness, chloroform splits up into hydrochloric acid, chlorine, and other products, including the trichloride of carbon; and both Soubeiran and Liebig have pointed out that, although chloroform vapor cannot be ignited in the air, it will, if passed over a spirit-lamp flame, burn, and liberate irritating vapors. The question as to the gases most probably formed, if the coal-gas is capable of uniting with the products of chloroform decomposition, is too wide a one for us to enter upon; nor do we think that we need go further than to say that, if Dr. Iterson's facts are to be taken without reservation, the irritant bodies which exercised so deleterious an influence were, in all likelihood, the products of the ordinary decomposition of chloroform—namely, free chlorine, hydrochloric acid, and possibly other chlorides and ammoniacal compounds.—*London Lancet.*

THE TREATMENT OF SQUAMOUS ECZEMA OF THE BACK OF THE HAND.—This disease is believed by Unna (*Montshft. f. p. Derm.*, 1889, No. 4) to be a seborrhœal form of eczema, in common with those forms of eczema known previously as "baker's itch," "bricklayer's itch," and the like. In most cases, he says, seborrhœal affection of other regions will be present at the same time—pityriasis capitas, an oily condition of the face, an intertriginous eczema, and so on. In the way of treatment it is recommended to cover the affected part with a thin layer of cotton batting soaked in the following solution: Resorcin and glycerin, each 10 parts; dilute alcohol, 180 parts. This is to be diluted with equal parts of water when used, and is to be applied in the evening. Over it is to be bound a large piece of gutta-percha tissue, so as to envelope the whole hand, and keep the batting moist all night. In the morning a zinc-oxide paste, either with or without sulphur, tar, or resorcin, is to be applied, and renewed once or twice during the day. For washing the hands, the patient should use only warm water, and avoid fatty soap. While caring for the eczema, the seborrhœal affection of other parts must be treated.—*N. Y. Med. Journal.*

TRAUMATIC NEUROSIS.—Strumpell, in the *Berliner Klinik*, points out with much clearness that a severe and general shaking of the central nervous system bring about a very complex but at the same time a very characteristic set of symptoms, which is best designated by the name of a "general traumatic neurosis." The symptoms present a great similarity in many respects to those of neurasthenia, in part also to those of hysteria, and in addition there are certain psychotic conditions induced which resemble acute melancholia and hypochondriasis.—*Canadian Practitioner.*

ON EROSIONS OF THE OS UTERI AND THEIR TREATMENT.

By J. E. BURTON, M.A., L.R.C.P., London.

[*Med. Press and Circular.*]

Although there appears to be a tendency to consider erosions, cervical catarrhs, and endometritis as things of no importance, due, no doubt, to our growing familiarity with diseases of the para and perimetrium, the broad ligaments, tubes, and ovaries, and the greater importance of these, there are still many who look upon erosions as conditions to be treated with benefit to the patient. We are far advanced from the first speculum era when it was thought that every uterine disease could be seen through a silvered tube and efficiently treated with a stick of lunar caustic; but it will not do to forget that erosions, if not of much importance, are manifestations of disease, and further, that they are not always associated with inflammatory conditions of the broad ligament or Douglas's pouch. Erosion may be due to catarrh of the uterus, or of the cervix alone. This, when not dependent on the intra-peritoneal affections named, is generally associated with some form of displacement. Professor Hardon, of Atlanta College, Georgia, has shown that some displacements drag on the uterine blood-vessels in such a way as to block them up more or less completely, according to the amount of the strain. If the circulation is impeded, the same condition will be brought about as will be produced by the same cause (blood stasis) in any other part—legs, scrotum, etc. Passive congestion will result in enlargement of the organ with increased weight; but in the case of the uterus no varicose ulcer will form, owing to the facility with which the congestion is relieved to a certain extent by discharges from the mucous membrane of the fundus and cervix uteri. The flow of the discharge over the delicate epithelium about the os uteri removes its upper layer, and causes the erosion that we see so frequently, just, as Virchow has pointed out, as a nasal catarrh will produce a sore at the junction of the skin of the lip with the nasal mucous membrane. If erosions, then, are not symptomatic of preceding intra-pelvic inflammations, they are of displacements of the uterus, and any effective way of treating the displacements is equally efficacious in curing the erosion, so much so, in fact, that the latter does not require special treatment. In these cases there is generally some complaint of backache and bearing down, and it has struck a German gynæcologist, Dr. Schwarz, of Halle, to combine a sedative treatment with vaginal supports for their relief. The method proposed and adopted by him with, as he claims, marked success, is to partly fill the upper part of the vagina with boracic acid, without first applying any kind of caustic, and keeping this in by means of a tampon. His proposal, as soon as seen, fell in with my own ideas as to how these cases should be treated, and I immediately adopted it, with more success than I have seen from any other line of treatment. The boracic acid is a sedative; it is an antiseptic; by attracting fluid for its solution, it depletes the structures in contact with it and reduces congestion; the support afforded by the tampon, if carefully adjusted, prevents dragging on the blood-vessels, obiteration of their channels, and stasis from obstruction, the vicious circle is broken, and tissues quickly return to a healthy condition. I could report a large number of cases of rapid recovery under this treatment. The notes of my first four cases treated in this way show that in the first the erosion and ectropion were recovered from after the fourth application, in the second after the sixth, in the third and fourth after the third in each case. I proceed as follows: Having satisfied myself that the case is suitable for the treatment, after cleaning the parts through a speculum—a Fergusson's is the most convenient in this case—two or three drams of powdered boracic acid are passed into the speculum, after which a tampon of tenax, or marine lint, soaked in equal parts of glycerine and water is passed in and carefully adjusted after withdrawal of the speculum. The patient is then directed to keep in the tampon five days, then syringe with hot water for two, and return for a fresh application on the eighth. Once a week is often enough for renewing the application. No caustic is applied, and there is consequently no sore produced by the caustic to heal. I have often been amazed by patients telling me that Dr. So and So burnt them twice or three times a week for ten, twelve, or eighteen months! How can the sore produced by any kind of caustic heal in a day or two? It happens in these cases that the original erosion becomes a caustic sore after the first application, a fresh application is made before it has had time to heal, then a third and a fourth, and so on, until accident, or something else interrupts a line of treatment as stupid as could possibly be imagined. If medical men place their confidence in caustics, they might at least give the sore they make time to heal after each application. Now and then a vagina will not well bear the glycerine used in the tampon, and then water alone may employed, or the plug may be removed as soon as any unpleasant sensations are felt. Under this treatment a case will rarely last six weeks. To prevent a relapse, however, a suitable pessary should be inserted after the erosion is well. It is a great advantage to a woman to take out and insert her own pessary, and why should she not have as much control over her pessary as she has over her artificial teeth I am not in a position to state. The advantages of being able to remove and replace her support at pleasure are so obvious that it is not necessary to mention them.

WHAT SHALL WE FEED WOMEN AFTER CONFINEMENT?—For—we might say centuries—the laity have insisted on giving the "puerperal women" gruels, beef teas, toast water, from the first to the ninth day after confinement, and the fact is, two-thirds of the physicians have fallen into this aged groove. We think this tea, gruel, and toast bill of fare, practically a starvation diet, irrational, impracticable, and a positive detriment to the patient. Is not the theory and practice a foolish one, when we consider for a moment that the organs connected with parturition will be more rapidly restored to the normal condition prior to conception; that the tissue changes, which we call involution, will be more quickly and perfectly accomplished; and that the new function of lactation will be more surely and plentifully established by a starvation diet. Does not common sense teach us that a diet, the opposite of the starvation one, is the proper kind to rapidly restore the uterine tissues to the normal state, and to prevent exhaustion of the patient by the *unusual cell waste* incident to lactation? Our plan is to give the puerperal patient as good nutritious food as she has an appetite for, and can easily digest. The woman exhausted by labor needs rest. As soon as she awakens give her a cup of good beef, chicken, or mutton broth; as soon as the general condition of the woman and the appetite calls for it, a safe guide, no matter whether it is the second or ninth day, gradually give solid foods—mutton-chops, tenderloin of beef, poultry, or game. I have often had patients eat a good piece of tenderloin steak the day after delivery with a decided relish and with good results. A nutritious diet of this kind has a decided tendency to prevent puerperal women from suffering from nervous exhaustion, sleeplessness, and many annoying and persistent nervous symptoms due to the excessive demands made on the system for the restoration of the uterus to its normal state and for the keeping up of the function of lactation.—*Med. Waif.*

HYDRATE OF CHLORAL IN CHAPPED NIPPLE.—Mitropolsky, of Moscow, recommends chloral as an excellent local means for fissured and excoriated nipples. The latter should be kept covered with compresses (soft linen) soaked in a solution of half a drachm of chloral in three ounces of water. The compresses should be changed every two and a half or three hours. When a prolonged application is necessary, it is advisable to use a weaker lotion (half-drachm to six ounces). The solution leaves a thin, whitish, firmly adherent film over the diseased surface, which does not disappear by suckling. Pain and tenderness are said to be strikingly relieved almost immediately; the lesions rapidly healing. The chloral compresses do not produce any bad effects on nurslings.—*St. Louis Med. and Surg. Journal.*

IN FLATULENT DYSPEPSIA.—Dr. Eloy, (*Gaz. Hebd. de Méd. et de Chir.*,) suggests the following:—

℞. Creasot. pur., gtt. x
Sodii bicarb., ʒ ij
Acaciæ pulv., q. s.
Aquæ, f℥v. M.

Sig.—A coffeespoonful one hour after each meal.

If the dyspepsia be dependent on gastric atony and insufficient gastric secretions:

℞. Pepsin, ʒj
Creasot., gtt. x
Bismuth subcarbonat., ʒj. M.

Divide in chartas xxx, of which one may be given in a gelatin capsule.—*Therapeutic Gazette.*

THE DIETETIC MANAGEMENT OF KERATITIS.

By D. B. ST. JOHN ROOSA, M.D.

[*The Post-Graduate.*]

The different varieties of keratitis form a large proportion of the cases of diseases of the eye that come under observation, both in public and private practice. This is especially true of the cases seen in hospitals and infirmaries. In the Manhattan Eye and Ear Hospital, as shown by the annual report, they form about twenty-five per cent. of those seen.

It is not the purpose of this paper to discuss any of those forms of inflammation of the cornea that are the result of injury, but only the idiopathic varieties. I am in the habit of adopting the following system of nomenclature in discussing keratitis:

First—Suppurative keratitis, which may be classified into ulcers of the cornea and abscesses.

Second—Diffuse keratitis.

Third—Vascular keratitis.

Fourth—Phlyctenular keratitis.

In general terms, all these forms of inflammation in so far as they do not, as before intimated, result from injury, may be said to depend directly on some failure in the nutrition. The cornea is a perfect barometer of the state of the general system. I do not mean by this that every person whose nutrition is impaired is likely to have a disease of the cornea, but that those who, from one cause or another, have suffered an idiopathic lesion of this one part of the organ of vision, must always be treated constitutionally with great hygienic care, or they will not have any chance of recovery.

This is not the place to enter upon a discussion of the etiology of these different varieties, but, in order to make my general remarks more intelligible, it may be said that suppurative keratitis is much more frequently the result of *trauma* than the other varieties; that ulcers and phlyctenular keratitis are actually, when analyzed closely, also the result of traumatism, for they occur in badly nourished children, whose faces and hands are not kept clean. When catarrhal conjunctivitis or a nasal catarrh occurs, the secretion is rubbed into the eye with the dirt from the hands, and an abrasion of the epithelium and an ulcer result.

Vascular keratitis is usually a consequence of trachoma. It is sometimes seen in diffuse keratitis, especially in that arising in congenital syphilis.

Diffuse keratitis, in a large proportion of cases, is a product of specific disease of the inherited form. It is a singular fact, that the acquired form of syphilis seldom produces keratitis.

Phlyctenular keratitis was formerly pretty generally known as strumous keratitis. Nowadays the prevailing belief is that struma, *per se*, has very little to do with the causation of this form of corneal inflammation, unless under the term struma are comprehended the ordinary results of bad hygiene, insufficient food of a proper kind, want of cleanliness, and so forth. Children of the best blood in the world will hardly endure a course of mal-management in a New York tenement house without having several attacks of catarrhal conjunctivitis. Some of these will result in a phlyctenule of the cornea. From such an origin we may trace many a lost eye. But what I wish to say is that he who attempts to treat any of the forms of keratitis, especially indolent ulcers, abscesses, and the diffuse variety, must have all his therapeutic resources at his command.

The children who suffer from these diseases, like most of the children of the poor and sometimes of the better classes, are improperly fed. It is a common practice in New York City, and I believe also in the country districts, to allow children, the moment they are weaned and sometimes before, to have "the run of the tables," as their parents say, to eat fish, flesh and fowl, and drink tea, lager and coffee, according to the ability of the parents to furnish such a variety. The local treatment of keratitis is of great importance, but were the practitioner to be deprived of all local means except warm water he could still often make great headway against the advances of this sight-destroying affection (except in the cases of vascular forms of trachoma keratitis) by hygienic means alone.

It is my belief that children, until they have their second teeth, should not be allowed, as a general rule (and a very general one, applying to almost all the cases), to have anything but milk and farinaceous food. In the correction of improper habits of living, we shall have a great resource in subduing keratitis. Older children, also, should be carefully watched as to their diet. One of the mistaken notions of the world, which the medical profession ought always to combat, is, that people ought only to eat when they wish to, and then only what they like. Many people, especially children, would always eat what is improper for them, and many adults are very prone not to eat enough.

The skin and the bowels will require the most careful attention in keratitis. It goes without saying that great care ought to be given to these matters when people are well, but when an inflammation of the eye of this form occurs, the physician will generally find neglect of the most fundamental rules of hygiene at the bottom of the trouble.

As to medicines I have very little to say, except to urge the use of cod-liver oil and iron in anæmic and debilitated subjects.

Keratitis in adults, when it occurs in the well-to-do, will tax our best wisdom and greatest resources. He who is the best physician will, as far as affections of the cornea are concerned, be the best oculist.

Locally, in the earlier stages, atropia, cocaine and hot water will be all the medication that is required. In many cases these agents will be required for many weeks. Occasionally the cornea must be tapped, in order to get the effect of atropia. It has become so much infiltrated that the hydrate will not pass through it.

Keratitis is pre-eminently a disease of the poor, the ignorant and the careless. He who does much to tone up the average general health of the community will do something to prevent keratitis.

THE TREATMENT OF TINEA TONSURANS.—In 1885, Harrison, of Bristol, England, first advocated the treatment of this disease by means of two solutions, one of liquor potassæ and potass. iodide, and the other of mercuric chloride. This was said to yield good results, but was troublesome to use. Now (*Brit. Med. Journal*, 1889, i., 465) the same physician gives us a modified procedure as follows: Every night and morning there is to be rubbed into the diseased parts a little of an ointment composed of caustic potash, gr. ix.; carbolic acid, gr. xxiv.; lanolin and oil of cocoanut, each ℥ ss. The hair is not to be shaved, and a cure is to looked for in from one to three months. During the treatment the whole head is to be anointed with an ointment composed of boric-acid ointment and eucalyptus ointment, each ℥ij.; oil of cloves, ʒ ss.; oil of cocoanut up to ℥vj. The other children of the family are to have their heads anointed with the same ointment. Favus may be treated on the same plan.—*N. Y. Med. Journal.*

NERVOUS ANASTOMOSES.—Dealing with anomalies of the musculo-cutaneous, median, and other nerves of the upper extremity, Hartman (*Bull. de la Soc. Anat. de Paris*), arrives at the following conclusions:

1. The nervous fibres are by no means so constant in their course as has generally been supposed.
2. As in the case of the arterial system the blood may pass to a given part through an unusual channel, so nerve fibres may run in a neighboring nerve-trunk, to rejoin the fellow branches of their trunk lower down, thus producing an elliptical arrangement.
3. These anomalies may be explained by the development of the nerves.
4. Their interest lies in their explanation of pathological facts. Where symptoms connected with peripheral nerves are difficult to explain, the possibility of an anomaly should always be remembered.—*London Med. Recorder.*

MEMBRANOUS CROUP.—The oil of turpentine would appear to be a remedy always to be tried in cases of membranous croup before resorting to intubation or tracheotomy. Loewentaner reports (*Med. News*) two cases of severe stenosis of larynx, in both of which the administration of a coffeespoonful of turpentine was almost immediately followed by expectoration of the membranes, and subsequent small doses internally or by inhalation led to complete recovery. Several coffeespoonsful of the oil may be administered during a night and day for several days if the membranes reform.—*Med. Review.*

HÆMATEMESIS.—The safest and most pleasant remedy for hæmatemesis is said to be water, drank as hot as can be borne, in quantities of half a tumblerful to a tumblerful (*Pittsburgh Med. Review*, July, 1889). No further hemorrhage occurs, and fragments of clots are vomited.

THE DIURETIC ACTION OF MILK-SUGAR.

[*Therapeutic Gazette.*]

At the recent meeting of the French Academy of Medicine, M. Germain Sée presented an interesting note as to the diuretic effects of milk-sugar,—a paper which largely goes to explain the diuretic effects attributable to milk, and well recognized by most physicians as one of the best of all diuretics, succeeding when apparently more potent remedies have failed. As long ago as 1879, Moutard-Martin and Richet, from experiments made in Vulpian's laboratory, determined that lactose, saccharose, and glucose all possess considerable diuretic properties. In experiments on curarized dogs, a canula being inserted into the ureter, they found that if a little syrup was injected into the veins, that the rapidity of the flow of urine was increased ten, twenty, or even thirty-fold. These authors likewise confirmed their conclusions by observations made at the sickbed, and their results there obtained substantiated their strictly experimental observation that lactose was a marked diuretic.

As is well known, milk is a typical food, and fills an important *role* in the therapeutics of diseases of the stomach and heart, while in practice it is largely used in diseases where diuretics are indicated, such as dropsy of cardiac or renal origin. Sée attributes this diuretic action to lactose, and he claims that lactose is the most powerful, as well as the most sure, of the diuretics known. He holds that when two quarts of milk are given to a patient, all the advantages of diuresis are obtained, without its inconveniences; while, on the other hand, the glycosuria apt to be produced by a strict milk diet is avoided by the use of lactose. Dr. Sée claims that with the administration of two ounces of milk-sugar, diluted in two quarts of water, all other liquids of any kind being suppressed, marked diuresis is obtained in all cases of heart-disease whatever their nature, with the single exception that its action is less constant in arterio-sclerosis. In *La Tribune Médicale* for June 20, 1889, and *La Pratique Médicale* for June 18 and 25, 1889, Dr. Sée published an account of his experiments in this connection. He states that he has careful notes of twenty-five cases in which the most abundant diuresis was produced by the employment of this method of treatment, the flow of urine immediately falling when the administration of milk-sugar was suppressed. He believes that lactose is, therefore, one of the best diuretics, while at the same time absolutely innocuous, and it is lactose to which milk owes its diuretic properties. The other constituents of milk, especially the water and the salts, have no manifest or useful action, chloride of sodium adding nothing to the diuresis obtained by milk, the sugar and the salts of potassium being little more efficacious. If milk is given in quantities of two quarts, diuresis is produced, but when four quarts are given, a quantity which will contain about six ounces of milk-sugar, considerable glycosuria will be developed; while at the same time there will be a marked excretion of urea indicating the destruction of the albuminates. By using the milk-sugar alone, however, these inconvieniences are avoided. Three ounces of milk-sugar, given in the twenty-four hours, will produce an enormous diuresis, more than an equivalent to that which might be obtained with four or five quarts of milk. As much as two or three quarts of urine may be passed daily under the use of this treatment, and under its employment any dropsy present will be almost surely reduced. The degree of diuresis produced by lactose increases up to the third day. It then remains stationary, and then becomes somewhat less for several days; but a short time later, even under the administration of the same amount of milk-sugar, the diuresis will again regain its original degree. Dr. Sée claims that while lactose acts as a favorable diuretic in cases of dropsy of cardiac origin, it is not so efficacious in the dropsy of renal affections. In the former class of effections it is claimed that it never fails, unless the kidneys are the seat of Bright's disease, and in which there is a considerable daily elimination of albumen. When the quantity of albumen is small, the result in this affection also may often be favorable. Sometimes the administration of lactose will produce diarrhœa, when naturally the diuresis will be diminished. In other cases, the patients may have been subject to profuse sweating, when likewise the polyuria will be diminished. As a rule, however, it is claimed that the remedy is perfectly supported, and may be given for eight or ten days without interruption, and then suspended for a day or two to have its employment renewed. If the simple solution of milk-sugar is badly tolerated, it may be aromatized with brandy or mint, all other liquids being suppressed during its administration. If what Dr. Sée claims is absolutely correct, the advantages of this remedy are very considerable, for it does not confine the patient to any restricted diet, and does not necessitate the prohibition of meat. It would seem that lactose acts directly on the kidneys, since the pulse and blood-pressure remain normal after its use. It, therefore, differs from digitalis, convallaria, and strophanthus, which are diuretics to the extent to which they increase blood-pressure. Dr. Sée would place lactose in the group of pure renal diuretics, in which he likewise locates caffeine and theobromine as remedies which increase the flow of urine without influencing the degree of vascular pressure. Dr. Sée relates numerous cases of dropsy from heart-disease which appear to have been favorably influenced by lactose, even when employed during the stage of imperfect systole. If, however, the asystole is complicated by dyspnœa, lactose is then powerless, though its action may be seconded by the iodide of potassium.

NEW THERAPEUTIC PROPERTIES OF ANTIFEBRIN.—We read in the *Centralbl. f. d. gesam. Therapie* for July that Dr. Ernst Jendrássik has discovered additional and most important therapeutic properties in antifebrin.

In those typical attacks of excitement, and even violence, which occur in tabes and dementia paralytica, eight-grain doses of antifebrine acted as a rapid calmative, the excited condition of the patients quickly giving place to a state of repose under its influence. The paralytic attacks were also greatly shortened by its use.

Jendrássick also used similar doses of the drug with great success in combating the laryngeal spasms of tabetics. These spasms, which usually occur near bedtime, cause the patient profound distress and frequently necessitate him to leave his bed and pass an almost sleepless night. In every case, however, where, as soon as the symptoms of the oncoming attack manifested themselves, antifebrin was given, the spasms were almost invariably aborted. —*Med. News.*

Bibliography.

A CLINICAL ATLAS OF VENEREAL AND SKIN DISEASES.

By ROBERT W. TAYLOR, A.M., M.D., Surgeon to the Charity Hospital, New York, and to the Department of Skin Diseases of the New York Hospital; late President of the American Dermatological Association; Joint Author of Bumstead & Taylor's "Pathology and Treatment of Venereal Diseases." Published by Lea Bros. & Co., 706 and 708 Sansom Street, Philadelphia, Pa.

This atlas, issued in eight very handsome imperial folio parts, is a genuine work of art, containing four hundred pages, with fifty-eight full-page chromolithograph plates, in which are one hundred and ninety-one figures from original paintings and selected from the works of the best known specialists on skin diseases, including Hebra, Kaposi, Hutchinson, Fox, Squire, and others. The woodcuts are of a very superior order. Price per part, $2.50. Specimen pages sent postpaid on receipt of ten cents by the publishers. This is a very superior work.

A SYSTEM OF GYNECOLOGY.

By American authors. Edited by MATTHEW D. MANN, M.D. Volume II. Philadelphia: Lea Brothers & Co.

As we take up this portly volume of nearly twelve hundred pages we are impressed with the creditable work that is constantly being done in this specialty by American physicians.

First there is a chapter on "Diseases of the Vagina," by Charles Carroll Lee, of New York, and on the "Hystero-Neuroses," by George J. Engelmann, M.D., of St. Louis. This is a subject that every general practitioner is called upon to attend. Here he will find it ably treated, and its study made really fascinating by the record of clinical cases.

"Extra-Uterine Gestation," by T. Gaillard Thomas, is just what every reader will naturally expect from the talented author: a concise and well-digested article.

"Tumors of the Breast," by the late Saml. W. Gross, M.D., of Philadelphia. This is perhaps the culmination of the work of Dr. Gross. For years he had made a careful study of tumors of the breast, and here are recorded in a systematic manner the fruits of his labor, his reasoning, judgment, and treatment. Without disparagement to others we are ready to say this is one of the most valuable articles in the entire work.

"Diseases of the Breast other than Tumors," by Roswell Park, M. D., of Buffalo; "Fistulæ," by Edward W. Jenks, M.D., of Detroit; "Diseases of the Bladder and Urethra," by W. H. Baker, M.D., of Boston; "Non-Malignant Tumors of the Uterus," by R. S. Sutton, M.D., of Pittsburg, are all well digested and well written articles, and represent the most advanced professional knowledge of those subjects.

"Malignant Diseases of the Uterus," by W. T. Lusk, M.D., of New York, and "Lacerations of the Cervix Uteri," by B. M. Emmet, M.D., are valuable contributions. The latter article is finely illustrated with chromo-lithograph plates.

"Chronic Inversion of the Uterus," by S. C. Busey, M.D., and "Injuries and Lacerations of the Perineum and Pelvic Floor," by Howard A. Kelly, M.D., are worthy of mention.

"The Treatment of Ovarian and Extra-Ovarian Tumors," by Wm. Goodell, and "Diseases of the Ovaries," by Robert Battey, M.D., and Henry C. Coe, M.D., very faithfully present those subjects.

"Diseases of the Fallopian Tubes," by Henry C. Coe, M.D., and W. Gill Wylie, M.D., is followed by a chapter on the "Pathology of Ovarian Tumors," by Stephen Y. Howell, M.D., which is one of the most carefully prepared theses ever offered the profession on this subject. It is a gem.

"The Clinical History and Diagnosis of Pelvic Tumors other than Uterine and Tubal," by M. D. Mann, M. D., and "Displacements of the Uterus," by Geo. T. Harrison, M.D., are concluding chapters of this great work, which is a credit to American Gynecologists and to the publishers.

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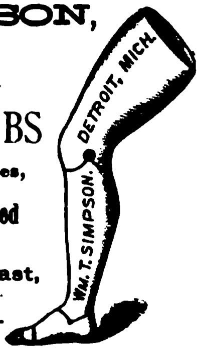
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Leading Articles.

WHAT WILL WE DO WITH THE LABOR OF THE CRIMINAL CONVICT?

This is a problem that claims the attention of political economists; it agitates politicians and statesmen, and is always a fruitful theme for discussion in every labor union and assembly. In fact, every citizen, whether capitalist, philanthropist, laborer or idler, is personally interested in a practical solution of the problem.

A prime consideration is the adoption and institution of all possible ways and means of reformation of the unfortunate convict, and that nothing may be done that will in any way detract from this laudable purpose.

In every feasible plan that has ever been adopted for the reformation and punishment of criminals there is involved the utilization of the physical labor of the convict. What is known as the silent, solitary system, as still in force in one or two State penal institutions, is cruel beyond ordinary necessity, is baleful in results, while it essentially cancels the value of the convict's labor. The system is so contrary to the spirit and intuitions of the latter part of our nineteenth century civilization that we pass it by without further consideration. The employment of the convict in some way that will not only make him self-sustaining, but also furnish even a small revenue to the State, will be our chief thought.

The customary plan pursued in Ohio and many other States is to hire the convicts by squads and companies to contractors, who usually employ them in some manufacturing business where the skill required is not great, and which is easily and quickly attained by the most stupid and awkward prisoners; and where the profits inuring from such labor, at the contract price, are very large.

Only a few firms of manufacturers engage in the business of employing convict labor, and the way is often left open for collusion between them and venal boards of directors and between each other. So that honest competition for the labor of convicts in reformatories and penal institutions is perhaps the exception and not the rule, which leads to the common inferential belief that the State does not derive anything like the amount of revenue from this source that it should.

Not only is there a deficiency in revenue, but the system itself creates distrust, to which may be added the antagonism of other manufacturers and workmen who are engaged in similar lines of trade and business. This antagonism extends, through sympathetic influences, to men who are engaged in other and widely different pursuits, but where manual skill for its conduct is required. This antagonism is in many instances yet further aggravated by maladministration of boards of directors and their executive officers. Thus the seeds of national disloyalty and disaffection are sown, and some, unfortunately, contain germs which sprout and grow into thrifty plants of socialism and anarchy.

To hire out to one or two firms the

labor of a stipulated number of men and women for a term of years is no doubt the easiest and least troublesome system as a solution of this vexatious question, and notwithstanding its shortcomings and objectionable features, as noted, meets with very general official approval.

Every State, county and city affords another, and, we believe, a better, system for the utilization of the always present convict laborer. The plan is not offered or set forth as either new or original, for it is perhaps the most ancient of all the methods that have been used in dealing with this important subject. It is the direct employment of convicts by the State, county and city on the public works.

To illustrate: Ohio has two long canals that have been invaluable in developing the resources of the State; they are still useful and carry a large tonnage of freight. This usefulness could be proportionately increased by doubling their size and carrying capacity. This could be accomplished by the penal convicts, and at a minimum cost to the State. Very little training is necessary in order to acquire a fair degree of expertness in the handling of a pick and shovel, and thus demonstrate to the people that convict time directly employed by the State for the State is worth very much more than contractors' prices.

Cincinnati has about five hundred male convicts in the city workhouse, who should be employed in the construction of the large trunk and branch sewers that must be built through Millcreek Valley and to the numerous suburbs that skirt the city on the north.

The immediate construction of those sewer-ways is an absolute necessity, and unless measures to that end are speedily adopted there will be a cry,—a wail of many voices for loved ones who have sickened and died,—and all because of the sluggish action of those who are authorized to do this needed work. This is a sanitary measure of the very greatest importance, and demands the active attention of the municipal Health Office and Board of Public Affairs. Almost every village in the populous Millcreek Valley is engaged in the construction of sewers, and not one of them has any other outlet than into the valley of Millcreek.

All of these villages, including the great city and county infirmaries and Longview Lunatic Asylum, the Ivorydale soap works and St. Bernard starch works, empty their sewage into Millcreek, which by the time it reaches the city limits is reeking,—saturated with stinking sewage-filth of the most poisonous character, and from which scores and hundreds of dairy cows obtain their only drink. The very thought of giving the milk of these cows to infants as their only or principal source of nourishment is sickening to stronger stomachs than theirs, and yet that is just what is being done right here in Cincinnati.

Here is work at hand for all the male convict labor of the city and county for half a score of years, in sewering the entire Millcreek district. Thus employed, every convict's labor would be worth to the city not less than seventy-five cents or more per day. There would be no convict-made goods to brand, or come in competition with those made by honest workmen. The fitness of the labor is beyond question, and, what is also worthy of consideration, its performance would be much more in the nature of a punishment than to be required to work in a comfortable shop with all the modern appliances and conveniences, which to many is just no punishment at all, as is proven every autumn by the number who either voluntarily ask the Judge of the Police Court to commit them or intentionally commit some misdemeanor that will send them to the workhouse for board and lodging until spring. Those creatures that are determined in this way to become wards of the city should be required to work in the sewer trenches, and at a rate that would fully compensate the city for their support. Such employment would not in any way conflict with their moral reformation.

PROGRESS IN EDUCATION.

IN THE CINCINNATI HIGH SCHOOLS, IS IT FORWARDS OR BACKWARDS.

Our comments last week seem to have voiced the sentiments of a host of thoughtful parents who have sent their children to the high schools, very many of whom, as their attention is daily drawn to an invalid son or daughter, sadly wish they hadn't.

We would have the teachers and Union Board of High School Trustees understand that our criticism is not antagonism, but in the direction of an effort to point out a better way, as drawn from a professional observation of more than a score of years, combined with that of other physicians of a longer and larger experience.

The arguments advanced have been from a physiological standpoint only, as we are under the impression that the studies in the high school curriculum are not usually too hard or too long, though sometimes this is the case, through the ambition and an error of judgment on the part of the teachers.

There can be no question as to the necessity of two school sessions in one day, in order to the preservation of the health of the average boy and girl, and that a violation of this law of nature bankrupts the physical resources of ninety per cent. of those who enter the high schools. Only ten to fifteen per cent. of those who enter these schools continue through the entire course. Such a decimation, should long ago have alarmed the teachers and board of trustees, and caused an investigation to find out the cause and a remedy. A contagious disease followed by a rate of mortality that high would be worse than the Black Death of the Middle Ages.

It is a matter of the greatest astonishment that the parents of so many hundreds of children have quietly and without a murmur accepted the situation, and not been aroused to actively protest against an inhuman and unreasonable course that effectually sapped the vitality of their offspring—that so often deprived their children of an education so ardently desired, and to which they were in justice entitled.

The following letter, accompanied by similar expressions from others during the past week, makes us wonder that the very stones in the streets do not cry out in unmistaken tones and language against the single-session-per-day system of the high schools. The daughter of this mother suffered from exhaustion, in a large degree brought on by the iniquitous course of living she was obliged to adopt at the age of puberty. Her mental capability was no doubt fully equal to the occasion if she had been properly fed at proper times, with relaxation as demanded by the physical laws of her being.

PLAINVILLE, O., Sept. 3, 1889.

Dr. Culbertson,

DEAR SIR:—I cannot refrain from expressing my thanks to you for so ably bringing before the public the condition of things in our high schools. You have well said "every word is true." My daughter is one of the living victims of this inhuman system. This overburdening, breakdown system of cramming as one would a fowl for market is too barbarous to be tolerated in a civilized country, to say nothing of religious pretensions.

My daughter was one of not less than four hundred who entered one of the city high schools in 1884. Also, one of the one hundred and two who, having had an average the whole year of ninety per cent. in the intermediate, were passed as honor pupils without examination to the high school. As you rightly term it, "with eager ambition the high school is entered." Having greatly enjoyed school-life heretofore, the future was looked forward to with a great deal of pride and pleasure.

Finding she could not get all her

lessons as she conscientiously considered well gotten, she began to get discouraged. I assisted, encouraged, and tried to take all the hardships off her I could possibly do myself. I have often retired for the night with the injunction that she must only stay up one hour, when by and by I would wake up and go to her study room at twelve o'clock and find her still bent over her books. Then I peremptorily put out the light and commanded her to retire! But this would be the beseeching request: "Mamma, won't you call me at four o'clock, for I haven't looked at my Latin!" But I, choosing to let tired nature have a chance, did not call her. The consequence, when she woke up she was all agitation, hurriedly cramming a little breakfast, and off to school to get a lecture for not being more industrious, or, as the teachers termed it, "more ambitious." Each teacher would expect the lesson recited to them must be well studied, when to have them all well gotten was sometimes utterly impossible. Consequently, two or three weeks before vacation she broke down, could not finish the year, getting an average of one hundred per cent. in algebra and history so far.

By sending her away for the summer she recuperated and was ready to enter the next year's grind, and was admitted to the "C" grade without examination.

Desiring to continue her education beyond high school, she chose the college course. There were in this class eighteen boys and ten girls, made up of the brightest and most enterprising of the grade. One of the language teachers told me, and the principal told my husband, that this was a "very strong class." When they had completed trigonometry their teacher told them they had gone farther than any class in twelve years.

Is it to be wondered at that one of the boys fell to the floor in a faint while at the blackboard? The greatest wonder is that more of them did not.

The teacher of Greek, like the one in trigonometry, because they were a strong class, gave them two more books of Homer than were in their course! And in Latin the Eclogues and Bucolics of Virgil. What was the consequence? When graduation day came there were just six girls and four boys in the class, a falling off of eighteen since the second year. At the end of four years there were just sixty-four graduates, all told, out of the four or five hundred that entered this particular school.

Another thing I will mention. Many of the pupils residing in the suburbs, of course, have to go in on railroad trains every morning, which was the case with my daughter. I remember one particular morning when the mercury was below zero, and street-cars could not run. After walking seventeen squares, facing the west wind, on entering the school building she stopped to warm her stiffened and almost frozen feet, and for this she was given ten demerits, not by a subordinate, but by the Principal, himself a father of grown daughters!! My daughter has not seen a well day since she got through school, and I fear she never will again. College for her is out of the question, as her health will not permit, much as she thirsts for higher mental culture. I would never send another child to these murderous schools. Is it strange that the pupils "wonder if the *teachers* will get demerits when they die!"

This is a plain letter, but it is the stubborn truth, and yet the half has not been told. I have longed to see this thing brought to light, not that I expect to be benefited thereby, but to save the life and health of the bright, beautiful, aspiring youths of our city. I have no more to sacrifice myself, but if my experience will just save one I will feel my effort was rewarded.

If there is any doubt that this is not true, I give as reference as to my character, Dr. Wm. H. Taylor, 329 W. Seventh street. Yours truly, P. H. W.

INDEX CATALOGUE of the Library of the Surgeon-General's Office, U. S. A. Volume X. O-Pfutsch. Another of these great tomes reminds us of the continuance of the work on this catalogue of the largest medical library in the world. This volume contains 7,658 author-titles, representing 2,905 volumes and 7,282 pamphlets; it also includes 14,265 subject-titles of separate books and pamphlets, and 29,421 titles of articles in periodicals. This will give a fair indication of the amount of work done in the preparation of a single one of these great volumes.

Correspondence.

HEADACHE DUE TO DISORDERS OF VISION.

CINCINNATI, September 2, 1889.

Editor Lancet-Clinic:

Some months ago I had the pleasure of contributing to your journal an article on "Headache Due to Disorders of Vision." So much has been written on this subject that its truths are sufficiently well established. However, from the fact that it is so often overlooked, it requires occasional rejuvenation, and the best "Elixir of Life" which can meet its case is the presentation of evidence from practice. I wish, therefore, to report but one case, not because it is in any way unique, but because of some interesting features.

Miss S,, æt. 22 years, came to me the latter part of July, referred by her physician, for the purpose of having her eyes examined. She had been treated for two years for headache, without receiving any material relief. The trouble was almost constant; scarcely a day found her free from pain. There was no apparent lesion to account for it; her menstrual function and digestive organs were not deranged. Having some symptoms, not altogether positive, of a specific nature, it was thought well by her physician to give her the benefit of the doubt, and he accordingly prescribed potassium iodide in liberal doses, but without obtaining any relief. When I examined her refraction I found that the vision (without homatropine) was the same in both eyes—$\frac{20}{30}$. With —0.5 cyl., ang. 0, V=$\frac{20}{20}$ R. and L. Under full dilatation of the pupils with homatropine, V., R. and L.,=$\frac{20}{30}$. With +0.5 cyl., ang. 90°, V=$\frac{20}{20}$. She was ordered this correction and advised to wear the glasses constantly. This she has done, and (being away on a pleasure trip) wrote home within the past few days that she has not had the headache since she began wearing her glasses a month ago.

This case is of interest from the fact that the error of refraction was a slight one, but still it was sufficient to give rise to the headache and other nervous manifestations, which have now disappeared.

GEO. H. GOODE, M.D.

Selected.

ALCOHOL IN FEVERS.

[*N. Y. Med. Journal.*]

The July *Forum* contains a paper by Dr. Hustin Flint on "Late Theories concerning Fever," in which the question of administering alcohol in fever is discussed with frank fair-mindedness and simple directness. If querulous sentimentalism could be silenced by the contemplation of facts, and the ideal of the situation be taken as the standard of duty, what Dr. Flint says in regard to the use of alcohol in disease would forever settle all controversy as to its morality or immorality. The fever patient is one who is burning up nutritive material so rapidly that, unless an increased assimilable food-supply is provided, he is quite likely to die of starvation. Sustaining measures are imperative. At work a man needs more heat than in repose, and more food. Although the fever patient does no work, he produces an excessive quantity of heat, and this involves of necessity an oxidation of matter. Food or some oxidizable material must supply this much-needed matter, or else the tissues are consumed. Exactly to the degree that the fever feeds on food is tissue saved and subsequent convalescence promoted. It is, however, the condition of the organs and the capability of assimilation that renders the introduction of food a problem which taxes the judgment and skill of the physician to the utmost. What food? And how administered? This must give us pause. A rational consideration of the subject is possible only from the scientific standpoint. Those who would abolish alcohol from the sick-room must first prove their moral right to risk starving a man because he has the misfortune to fall ill. And these same sentimentalists, with their narrow view of alcohol, cry out against vivisection and abstinence from food for purposes of scientific investigation! O perverse and penny-wise generation!

Dr. Flint's own words deserve to be quoted entire and made a part of every reason-loving mind, be it that of layman or that of physician. The preachment comes home to all who love the truth. It would seem that only willful blindness could fail to see and be convinced. Thus says our author: "In the face of the difficulty which exists in supplying matter for oxidation in the body to feed the exaggerated calorific processes, the use of any agent which will meet this want can not logically be condemned on sentimental grounds alone. Even if alcohol be regarded as a poison, it must be remembered that poisons are often useful in medicine and save life. From a purely scientific point of view, it may be admitted that, in perfect health, alcohol is not useful and is deleterious. As physicians study the poisonous action of certain remedies in learning how to use them with happy effect, so what may be called the physiological effect of alcohol may be studied as a preparation for its use in disease. The symptoms of alcoholic intoxication are due to certain peculiar effects upon the nerve-centers of actual alcohol circulating in the blood. In perfect health, a very small quantity of alcohol will produce some effect of this kind; but this passes away when the alcohol is eliminated by the breath or otherwise, or when it is oxidized. In certain diseases, particularly in fever, very large quantities are tolerated, and this is because the alcohol is promptly oxidized, and makes no impression, as alcohol, on the nervous system. In disease, as in health, even a slight development of alcoholic intoxication is followed by a reaction more or less injurious." The author goes on to state that certain conditions in fever, and these alone, are indications for the use of alcohol—persistence of high temperature, great feebleness, rapid pulse, etc., showing intense and alarming general depression. The value of the agent depends not upon its stimulating effect on the nervous system, but upon its rapid oxidation. Being promptly taken up by the blood, it requires no preparation by digestion, and is oxidized even more rapidly in fever than in health, supplying material for combustion just in proportion to its oxidation. Thus the normal tissues of the body are saved from degeneration and destruction. "There is a theory," says Dr. Flint, "that the carbohydrates of food are deposited in the liver, discharged into the blood as required, in the form of a substance called glycogen, which is converted into alcohol and then oxidized. There are many strong facts and arguments in favor of this view; and, if it be true, the administration of alcohol in fever is simply the introduction of a carbohydrate in such a form that it can be promptly used in supplying material for heat, the digestion of carbohydrates being difficult and slow. A calculation of the heat value of alcohol shows that one quart of French brandy, when oxidized, produces as many heat-units as a man of ordinary size would make in twenty-four hours. As a matter of actual observation, a quart or even more of brandy has been given in cases of fever in twenty-four hours, without any indications of alcoholic intoxication, and with the effect of actually reducing the temperature."

The possibility of confirmed alcoholism growing out of the use of alcohol in fever naturally suggests itself. The possibility of the morphine, chloral, cocaine, chloroform, or other habit exists whenever and wherever one of these drugs is administered. Yet those who withhold these agents risk the sacrifice of a life now and then—a sacrifice to what the more intelligent portion of the community regards as prejudice. So, too, with alcohol. It would be difficult to find an instance of the alcoholic habit directly and solely due to the use of alcohol in fever. The fact is, drunkards are made in the nursery far oftener than is suspected. The pretty baby that is not taught self-control fails to manifest toughness of fiber when adult life demands it. "The child is father to the man." Greed, efforts for gain out of all proportion to physical strength, overworked ancestors, the desire for oblivion from grief, chagrin, and disappointment, are individual and collective factors that help fill the ranks of all forms of inebriety. Diseases of the will far more than diseases of the body lead to intemperance. Because one whose unwise parents failed to train him and guide him in baby-days becomes a drunkard and dies a drunkard's death, shall we starve our child because he lies ill of a fever? The sophistry of the argument is apparent when deprived of tin trumpets and all silver-gilt tinsel. Yet such is the reasoning of the sentimentalists—those who don't know—concerning the use of alcohol in disease. However great the pride of science, it sinks into insignificance beside the pride of complaisant ignorance. The physiologist, the chemist, and the philosopher alone are capable of expressing a thoughtful opinion upon the questions of the day, of which the use of alcohol is possibly the most important. Dr. Flint's arguments, based upon the facts of the case, are incontrovertible and merit the most careful consideration of all interested in rational living.

Operation for Torticollis. — Dr. Leverat has devised a new method of treating torticollis. Instead of operating subcutaneously, he cuts down upon the sternal tendon of the sterno-mastoid muscle, effected by a longitudinal incision two centimetres long. He clears the tendon with the forceps, passes a grooved director under it, and divides it. He then divides any tissue that may bind down the muscles at that spot, sutures the wound, and dresses it antiseptically with iodoform gauze. Over the dressings he places the following: The head being enveloped in cotton wool, a silicated bandage is wound horizontally around it at the level of the forehead, and similar bandage vertically over the crown and under the jaw. Where these bandages meet at the level of the mastoid process on the sound side, a small hook, with the concavity looking upward, is inserted. Another silicated bandage is wound round the body below the axillæ, and through the thickness of the bandage a hook is inserted in the middle line in front, having its concavity looking downward. When the bandages have dried, the two hooks are connected by a band of India-rubber, which assists the sterno-mastoid of the sound side to keep up a continuous traction and so correct the deformity. This apparatus and the dressing are left untouched for fifteen days, and the success of the operation is said to be assured.—*Lancet.*

A Method of Treating Pruritus and Irritable Skin.—I have used, with good results, a cone composed of cocoa butter impregnated with two per cent. of cocaine. This is rubbed over the part affected. The warmth of the skin melts off a layer of the cocoa butter, which forms a soothing emollient shield over the irritable patch.

The remedy has been put up in the form of cones, inclosed in boxwood cases with screw-tops, something after the manner of menthol cones. These can be carried about by the patient, ready at any moment for self-application. — Porrit, *British Med. Journal.*

TREATMENT OF CHOREA BY PROLONGED SLEEP.

[*London Medical Recorder.*]

Dr. H. Charlton Bastian (*London Lancet*) has lately recorded a case which strikingly shows the value of complete rest, such as is found in deep and prolonged sleep, in the treatment of certain severe cases of chorea. The method is founded on the well-known fact that almost invariably choreic movements are arrested during sleep, a circumstance which proves that the disordered actions of the nervous centres, on which these movements depend, are also suspended. By greatly prolonging this period of rest the mischief done to nerve-centres by the maintenance of incessant and unnatural activity is cut short, and an opportunity is given for the gradual abatement of the functional perversion in certain parts of the nervous system (wheresoever situated), which is the primary cause of the malady. The patient was a girl aged 20, who, five years before coming under notice, had had a great shock. This was followed by extreme weakness, and two years later by fits of unconsciousness, as to the exact nature of which no definite information could be obtained. Nine months before coming under Dr. Bastian's care choreic tremblings came on after unwonted bodily fatigue, accompanied by religious excitement. For this she was treated with considerable success, but after a long railway journey the chorea came on again as bad as ever. The movements affected both hands and arms, as well as both legs. On trying to stand or walk (which was hardly possible even with assistance) the movements became general and very violent, even the head being moved up and down by the neck muscles. The movements never stopped at any time when she was awake, but during sleep they ceased entirely, though once or twice a slight tremor was noticed. Headache was almost continuous, and, though the history was suggestive of a hysterical element in the case, there was a total absence of anæsthesia, rigidity, or paralysis. Treatment was begun on February 27, a mixture containing liquor arsenicalis, bromide of potassium, and spirits of chloroform being given three times a day, with a five-grain pill of aloes and myrrh every morning. On March 4, as there was no improvement, twenty grains of chloral hydrate and ten grains of bromide of potassium were ordered, to be repeated on awaking; the patient to be allowed to remain only half an hour awake at a time for the administration of nourishment, and the sleeping draught to be given as seldom as possible. At first the draught was required every four hours; later on, the patient sometimes slept eight hours at a stretch, but on an average she took the draught every six hours. Every effort was at the same time made to keep her perfectly quiet and in every way to favor the continuance of sleep. Her food was about a pint and a half of beef-tea or mutton-broth, and the same amount of milk, usually with two eggs beaten up in it, during the twenty-four hours. Constipation was prevented by the administration of forty-five minims of the liquid extract of cascara every night, followed, if necessary, by an enema in the morning. In her waking intervals the movements of all the limbs became gradually less, but she still complained of headache. Her temperature during this period of sleep varied from 99.6° to 95.4°; her pulse from 70 to 102, and her respirations from 20 to 52. On March 18 she was allowed to awake, and the movements were decidedly less marked and less extensive. On the 25th sleep was again induced as before, and was kept up for three weeks. The movements during the waking intervals became less and less and the headache was less severe. On April 16 she was again allowed to awake. The movements in the legs were almost entirely gone, and the hands were also much quieter than before. Her mental condition, however, became disturbed; she cried and was depressed, fancying she had committed some great fault. On May 8 she was quite cheerful, and could walk and knit easily. A fortnight later she was discharged with slight tremor in the right hand only. "During the whole time she was asleep her general nutrition was well maintained; her cheeks and lips continued of good color; there was no sickness. Her tongue remained quite clean throughout, and she took her food well. The urine and motions were passed into a bed-pan, and there was never any incontinence." Dr. Bastian states that he has treated eight or nine cases of chorea in this manner during the last twelve years. Some of the cases have been notably improved; other very chronic cases have not derived much permanent benefit. In none of them has any evil resulted from the treatment. The headache in the case above recorded was quite exceptional, and had existed long before the treatment was begun. For its relief the bromide of potassium was combined with the chloral, an addition which Dr. Bastian had never found indicated before. In no other case either had he kept the patient asleep longer than a fortnight at a time, and he is disposed to think that it might have been safer not to keep her under the influence of chloral for the extra week, even though this might have involved another two weeks' sleep, after an interval, for the cure of the chorea. Dr. Bastian adds that in ordinary cases of chorea he never thinks of having recourse to the mode of treatment which has just been described, and in the most acute and severe cases of the disease, in which the temperature is raised and the movements are violent and continuous, with or without delirium or maniacal symptoms, he has never tried it, and should not recommend its adoption. It is especially applicable to cases in which there is no fever and no heart disease, and in which the movements are severe and continuous, and have so continued for months or years without abatement. He attaches little importance to any supposed curative influence of chloral on chorea except through the intervention of the sleep which it induces. Paraldehyde is too nauseous, but sulphonal might prove as efficacious in procuring continuous sleep as chloral. Its great insolubility and slower action, however, would probably involve a distinct lengthening of the interval of wakefulness on each repetition of the drug. This mode of treatment should never be attempted in private practice without the aid of skilled nurses.

THE RELATION OF PELVIC MEASUREMENTS TO OBSTETRIC PRACTICE.—Dr. H. T. Pershing concludes an extended study thus:

1. Measurements are not to be regarded as necessary only in rare cases, and hence but rarely employed. On the contrary, the pelvis of every pregnant woman should be examined when she is received as a patient, or as soon afterwards as possible.

On this point Spielberg says:

"It cannot be too urgently impressed that the pelvis is to be included in the examination of every pregnant and parturient woman, even when there is not the least suspicion of contraction. In this way, not only will the overlooking of anomalies be avoided, but the obstetrician will be prevented from finding himself at some time during labor brought face to face with difficulties of which he had no presentiment, and which, with timely knowledge, he might have avoided, or at least made less formidable."

The fortunate termination of previous labors by no means does away with the necessity for this examination. It is an undoubted fact, amply sustained by experience, that in cases of contraction the difficulties tend to increase with the number of labors, and while the first and second labors may end favorably, later ones may require the severest operative procedures.

2. The examination should consist in measurement of the external conjugate, anterior and posterior iliac spines, and iliac crests. If these external measurements indicate a normal pelvis, the examination may end with them. But if contraction is suspected, the diagonal conjugate and the oblique ascending diameter of Lohlein should also be taken. These measurements should be considered in the light thrown upon them by the previous history and general condition of the patient, and especially by a careful internal and external palpation of the pelvic bones, which will reveal the necessity for further measurements if it exists.—*American Journal Med. Sciences.*

ACADEMY OF MEDICINE.

SESSION OF 1889–90.

First meeting, Monday, September 9, Dr. J. T. Whittaker will introduce the subject of "Modern Hypnotics." To be followed by a discussion by Drs. Nickles, Forchheimer, Zenner, Fackler, and others.

September 16, Dr. David DeBeck will report a case of "Abscess of the Orbit."

September 23, Dr. Geo. A. Fackler will read a paper on "Gastric Ulcer, with Jaundice," and report a case.

September 30, Dr. B. K. Rachford will report some "Experimental Studies on Typhoid Fever," and Dr. J. M. French will read a paper on "Treatment of Typhoid Fever."

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

Terms, $3.50 per annum in advance.

☞All letters and communications should be addressed to, and all checks, drafts and money orders made payable to

DR. J. C. CULBERTSON,
Editor and Publisher,
199 W. 7th Street, Cincinnati, Ohio.

Cincinnati, September 7, 1889.

The Week.

SOUTH-WESTERN OHIO MEDICAL SOCIETY.

A well-attended meeting of regular physicians of this and adjoining counties of this State was held in Parlor A of the Burnet House, Cincinnati, at 2 o'clock Saturday, August 31. This was in response to a call for the purpose of organizing the above-named society.

The call included the following twenty-four counties in this quarter of our State: Hamilton, Butler, Preble, Dark, Shelby, Logan, Miami, Champaign, Clark, Montgomery, Greene, Warren, Clinton, Clermont, Brown, Fayette, Highland, Adams, Ross, Pike, Scioto, Jackson, Lawrence and Gallia.

After preliminary organization and considerable favorable discussion it was decided to proceed at once to form a permanent organization.

The following officers were elected:

PRESIDENT.

Dr. W. A. Campbell, of Eaton (Preble).

VICE-PRESIDENTS.

Dr. S. S. Scoville, of Lebanon (Warren);
Dr. D. B. Cotton, of Portsmouth (Scioto);
Dr. D. C. Wilson, of Ironton (Lawrence).

TREASURER.

Dr. D. R. Silver, of Sidney (Shelby).

RECORDING SECRETARY.

Dr. David DeBeck, of Cincinnati (Hamilton.

CORRESPONDING SECRETARY.

Dr. H. M. Brown, of Hillsborough (Highland).

EXECUTIVE COMMITTEE.

These officers form an Executive Committee in conjunction with the following gentlemen representing those counties not already represented among the officers:

Adams—Dr. J. W. Bunn, West Union.
Brown—Dr. T. W. Gordon, Georgetown.
Butler—Dr. Dan Millikin, Hamilton.
Champaign—Dr. M. A. Bartley, Urbana.
Clarke—Dr. W. W. Hall, Springfield.
Clermont—Dr. A. W. Ashburn, Batavia.
Clinton — Dr. R. T. Trimble, New Vienna.
Darke—Dr. Wm. H. Matchett, Greenville.
Fayette—Dr. Chas. M. Wilson, Washington C. H.
Gallia—Dr. Jas. Johnston, Gallipolis.
Greene—Dr. A. H. Bundage, Xenia.
Jackson—Dr. W. E. Williams, Jackson.
Logan—Dr. Ben. S. Leonard, West Liberty.
Miami—Dr. J. A. Lowe, Piqua.
Montgomery—Dr. J. M. Weaver, Dayton.
Pike—Dr. Anson Hutt, Waverly.
Ross—Dr. E. J. Galbraith, Chillicothe.

This committee will meet on the first day of each spring and fall meeting, ten members forming a quorum.

BY-LAWS.

The following provisional By-Laws were adopted:

Membership limited to the section of the State given above, and to the regular profession.

Initiation fee of one dollar; no further dues except such slight assessments as may be needed from time to time for actual running expenses—printing, postage, etc.

Two meetings annually, one in October at Cincinnati, and one in May, June or July at some smaller town in the district. Papers limited to fifteen minutes, discussions to ten minutes. No entertainments given or expected.

Officers elected for one year, except the President: elected at each semi-annual meeting.

The first regular meeting will be held at the Burnet House, Cincinnati, on Wednesday and Thursday, October 9 and 10. Over a dozen papers are already promised.

The initiation fee may be sent at any time to Dr. David DeBeck, 139 W. Ninth street, Cincinnati, O., and the certificate of membership will be returned by mail.

SOUTHERN TRI-STATE MEDICAL ASSOCIATION.

The following circular is self-explanatory:

CHATTANOOGA, Tenn., Aug. 8, 1889.

The following call has been issued:

"The members of the medical profession in Alabama, Georgia, and Tennessee are requested to meet in Chattanooga on the third Tuesday in October, for the purpose of forming a Tri-State Medical Association. All will be admitted to the meeting of the Association, but the membership will be restricted to graduates of regular medical colleges in good standing."

This call is signed by committees from Jackson County, Alabama, Medical Society; Chattanooga, Tennessee, Medical Society; Cleveland, Tennessee, Medical Society; Cartersville, Georgia, Medical Society; Dalton, Georgia, Medical Society.

It is hoped that there will be a general turnout of the profession. Papers of interest have been promised by prominent men.

This organization will be independent of all other societies. It will be an assotion of individual members of the profession of medicine, and will be managed in the interest of medical progress. You are earnestly requested to be present and participate in the exercises.

The session will continue two days. If you desire to read a paper or exhibit a specimen, please notify the undersigned at an early date.

Another circular will be issued in due time announcing the titles and authors of papers. Fraternally yours,

FRANK TRESTER SMITH, M.D.,
Sec'y of Committee.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

The following is the program of the meeting of the American Association of Obstetricians and Gynecologists, to be held at the Burnet House, Cincinnati, September 17, 18, 19, 1889:

TUESDAY, SEPTEMBER 17.

Morning Session.

ADDRESS OF WELCOME AND RESPONSE.

1. Congenital Sinus of the Urachus. Abdominal Incision. Recovery. With remarks. A. VanderVeer.

2. A Case of Extra-Uterine Pregnancy. Operation and Recovery. L. S. McMurtry.

3. Intra-Uterine Cord Amputation of the Fetal Extremities. Joseph Price.

Afternoon Session.

4. Forceps as a means of Rotating the Head in Labor. Edward J. Ilk.

5. The Rectification of Face Presentations. R. L. Banta.

6. Umbilical Hemorrhage: Its Treatment. Llewellyn Eliot.

7. Management of the Perineum During Labor. A. P. Clarke.

8. Flap-Splitting in Perineorrhaphy, with special reference to Tait's Operation. X. O. Werder.

WEDNESDAY, SEPTEMBER 18.

Morning Session.

9. A Report of Eighty Cases operated upon for Cure of Dysmenorrhœa and Sterility, by Rapid Dilatation of the Uterus under an Anæsthetic. Franklin Townsend.

10. Some Notes on the Action of the Galvanic Current in the Treatment of Uterine Diseases. Thomas Opie.

11. Peri-Uterine Inflammation: Its Pathology and Treatment. L. S. McMurtry.

12. New Observation respecting the Functions of the Round Ligaments of the Uterus. J. H. Kellogg.

13. The President's Annual Address. Wm. H. Taylor.

Afternoon Session.

14. Vaginal Hysterectomy. E. E. Montgomery.

15. Supra-Vaginal Hysterectomy: Extra-Peritoneal. Dry Treatment of the Pedicle. Joseph Price.

16. Successful Removal of a Fibrous Tumor of the Right Ovary during Pregnancy. J. H. Carstens.

17. A Case of Metremphysema. T. E. McArdle.

THURSDAY, SEPTEMBER 19.

Morning Session.

18. Animal Suture: Its Place in Surgery. Henry O. Marcy.

19. Sutures and Ligatures: What Material shall we Use? C. Cushing.

20. Peritoneal Effusions. W. H. Myers.

21. The History of a Case of Ovariotomy. W. P. Manton.

22. Reasons for Drainage in Ovariotomy. Hampton E. Hill.

Afternoon Session.

23. Discussion: Is Craniotomy Justifiable in Living Children?

Additional papers will be presented.

IT is far better to use two fingers for vaginal examination, not only because the middle finger is longer than the index, but still more because with two sensitive surfaces, the relative position of which can be varied, we can find infinitely more than with one.—*Schultze.*

FOR SALE.—A lucrative established practice for sale, with good two-story frame house and office, stables, etc., all in good order. Possession given immediately upon sale of premises, and good will of practice to go with sale. Terms reasonable. Cause for selling—wish to retire. Address,
DR. C. T. MCKIBBEN,
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CHEMICAL FOOD is a mixture of Phosphoric Acid and Phosphates, the value of which physicians seem to have lost sight of, to some extent, in the past few years. Messrs. R. A. Robinson & Co., to whose advertisement (page 16) we refer our readers, have placed upon the market a much improved form of this compound, "Robinson's Phosphoric Elixir." Its superiority consists in its uniform composition and high degree of palatability.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending August 31, 1889.

Ward.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	...	..	1	1	...	..	...
2nd	...	..	...	..	...	..	...	..	...	..	...
3rd	...	..	...	..	...	..	4	..	...	..	...
4th	...	..	...	..	1	..	1	1	...	..	...
5th	...	..	...	..	...	..	...	..	...	..	...
6th	1	..	...	..	...	..	...	..	...	..	...
7th	...	..	...	..	...	..	1	..	...	..	...
8th	...	..	...	..	...	..	...	..	...	..	..
9th	...	..	...	..	...	..	...	..	...	..	...
10th	...	..	...	..	...	..	2	1	...	..	...
11th	.	..	...	..	...	..	1	1	...	..	...
12th	...	..	...	..	...	..	2	..	...	..	...
13th	...	..	...	..	...	..	...	..	...	..	...
14th	...	..	...	..	...	..	2	..	1	..	...
15th	...	..	...	..	...	..	...	..	...	..	...
16th	...	..	...	..	...	..	...	..	...	..	...
17th	...	..	...	..	...	..	...	..	...	..	...
18th	...	..	...	..	...	..	...	..	...	..	...
19th	1	..	..	..	...	..	1	..	...	..	...
20th	...	..	...	..	...	..	5	2	...	..	...
21st	...	..	...	..	...	..	...	..	...	..	...
22nd	...	..	1	..	...	..	1	1	...	..	...
23rd	...	..	...	..	...	..	1	..	...	..	...
24th	...	..	...	..	...	..	1	1	...	..	...
25th	...	..	...	..	...	..	1	1	...	..	...
26th	...	..	...	..	...	..	1	..	...	..	...
27th	...	..	...	..	...	..	1	1	...	..	...
28th	...	..	...	..	...	..	...	..	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	...	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	..	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	..	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	2	..	1	..	1	..	26	10	...	1	...
Last week.	6	2	1	1	6	1	21	10	...	6	2

The following is the mortality report for the week ending August, 31, 1889.

Cholera Infantum	4
Diarrhœa	1
Dysentery	5
Entero-Colitis	2
Other Zymotic Diseases	4—27
Cancer	1
Phthisis Pulmonalis	8
Other Constitutional Diseases	7—16
Apoplexy	2
Bright's Disease	4
Bronchitis	1
Convulsions	2
Heart Disease	3
Liver Disease	1
Pneumonia	9
Other Local Diseases	15—42
Old Age	1
Premature Birth	3
Puerperal Peritonitis	1
Other Developmental Diseases	6—11
Accidental	8
Homicidal	1— 9
Deaths from all Causes	105
Annual death rate per 1000	16.80
Deaths for corresponding week in 1888	105
Deaths for corresponding week in 1887	109

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 50 observers (embracing 38 counties) show the following diseases to prevail for the week ending Friday noon, August 30, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Diarrhœa	33	134
Cholera Morbus	26	48
Tonsillitis	21	38
Dysentery	19	43
Bronchitis, acute	17	26
Intermittent Fever	13	39
Rheumatism (acute)	13	20
Remittent Fever	12	21
Cholera Infantum	11	32
Typhoid Fever	11	19
Pleurisy	11	11
Erysipelas	8	8
Typho-Mal. Fever	6	13
Consumption (Pul.)	6	7
Whooping Cough	4	53
Diphtheria	4	10
Scarlet Fever	3	5
Pneumonia	2	2
Cerebro-Spin. Men.	1	1
Measles	0	0
Puerperal Fever	0	0
Croup, membranous	0	0

REMARKS.

Diphtheria reported by observers at Summerfield, Moorefield, Moscow, and Rocky River. Reported by health officers: Toledo, 7 cases, 2 deaths; Mt. Gilead, 3 cases; Cincinnati 10 deaths; Columbus, 8 cases, 1 death; Xenia, 4 cases; Dayton, 5 cases; Bainbridge, 3 cases; Millersburg, 1 case; Perrysburg, 1 case; Salem, 1 case.

Scarlet Fever reported by observers at Bowling Green and Delta. Reported by health officers: Dayton, 1 case; Youngstown, 1 case; Woodsfield, 2 cases; Painesville, 2 cases; Millersburg, 1 case.

Typhoid Fever reported by observers at Sharonville, Miamisburg, Caldwell, Woodstock, Piqua, Plymouth, Dodgeville, Botkins, Martin's Ferry, Moorefield, and Lovetts. Reported by health officers: Cincinnati, 1 death; Toledo, 1 death; Delphos, 3 cases; Wadsworth, 3 cases; Perrysburg, 1 case; Salem, 1 case; Piqua, 4 cases, 2 deaths; Milford Centre, 2 cases; Mechanicsburg, 2 cases; and West Liberty, 2 cases. Twenty-five cases at New Concord.

C. O. PROBST, M.D., Secretary.

A SPECIMEN ARMY MEDICAL BOARD EXAMINATION.

[*Medical Record.*]

Arithmetic.—Time, forty-five minutes. 1. *a.* Multiply $17\frac{8}{9}$ by 13.37. *b.* Divide $4\frac{7}{8}$ by $2\frac{1}{3}$. 2. Define proportion in arithmetic. 3. If four grammes of morphia cost forty cents, what is the price per apothecaries' ounce and per avoirdupois ounce? 4. A owes B $1,000, to be paid in twelve days, and $500, to be paid in three months. If settled by one payment, when should this be made? 5. What is the cube root of .08769? 6. What is the air space of a ward 30 feet long, 18 feet wide, walls 13.5 feet in height, with six round columns 18 inches in diameter? 7. How can you ascertain the width of a river which you are unable to cross? 8. *a.* How is the value of an angle expressed? *b.* Name and illustrate by diagrams the principal forms of triangles.

Geography.—Time, forty-five minutes. 1. Mention the sources and principal tributaries of the Missouri River. 2. Tell what you know of the physical geography of the peninsula of Florida. 3. What strait separates Asia and North America? What portions of land do the Straits of Magellan separate? 4. Explain the cause of the trade-winds. 5. Where and what is Samoa? 6. What are the principal mountain ranges of Europe, and where is each situated? 7. How is the State of Kentucky bounded.

History and Literature. — Time, one hour. 1. What was the object of the crusades, and what the date [approximately] of the first? 2. What led to the earlier Arctic expeditions? 3. What were the most important decisive battles of the war of 1861–65, and who commanded the opposing armies? 4. Who were the allies at the battle of Waterloo? 5. What are the principal works of Chaucer, and in what century did he live? 6. Mention two or three of the early Italian authors and their principal works. 7. Who was Hawthorne and what did he write? Who wrote "Evangeline?" What did Prescott write? 8. What city was the scene of Homer's "Iliad," and where was it situated?

Chemistry.—Time, one hour. 1. State the law of multiple proportions. 2. What is ozone and what are its properties? 3. Give the names and symbols of the non-metallic elements. 4. How is chlorine usually obtained in a free state? 5. What is the composition of phenol, and from what source is it obtained? 6. What is the source of the essential oils, and what are the chemical and physical properties? 7. What are the properties of hydrocyanic acid, and by what tests is it recognized?

Physics.—Time, one hour. 1. In what direction is the pressure of the atmosphere most exerted? 2. What is the lowest point [Fahrenheit] registered by the mercurial thermometer? 3. Why is the light of a Bunsen burner non-luminous? 4. How do you determine the number of vibrations per second necessary to produce a given musical tone? 5. What do you understand by the emission theory of light, and what by the undulatory theory? 6. Mention and define one or more of the heat units. 7. Explain the construction and uses of the electro-magnet.

Hygiene.—Time, two hours and a half. 1. What are the advantages and disadvantages of stoves as a means of heating? 2. What means would you adopt to prevent the spread of scarlet fever, and what to prevent the spread of typhoid? Give your reasons in each case. 3. What diseases have been most influenced by the construction of sewers in towns? 4. What is the proportion of CO^2 in the atmosphere of a sleeping apartment when a "close" odor from organic matter begins to be perceptible? 5. What disinfectants would you use during an epidemic of cholera, and how would you use them? 6. Mention some easy methods of testing the purity of milk. 7. What is the source of ammonia in impure water, and what is the most reliable test of its presence? 8. What is, under ordinary circumstances, a proper temperature for a sick-room or hospital ward? 9. What is the effect of alcohol on the excretion of pulmonary carbon dioxide? 10. Mention the death-rate of one or more of the principal cities in this country and in Europe.

Anatomy and Physiology.—Time, three hours and a half. 1. Describe the surgical anatomy of the axillary artery, giving its origin, course, and relations in different parts of its course: enumerate its branches and state their course and ultimate distribution. 2. State the parts cut through in a circular amputation of the middle of the thigh. 3. Name the arteries establishing the anastomoses around the knee-joint after ligature of the femoral artery. 4. Give the origin, relations, branches, and their final distributions, of the seventh cranial nerve, and state its functions. 5. Name the viscera: 1, covered by peritoneum; 2, partially invested by peritoneum; and 3, state what viscera have no peritoneal investment.

Physiology.—1. Mention the different kinds of cartilage that exist in the human body; describe the peculiarities of structure that distinguish each variety, and state the purposes which each answers and where found. 2. What are the principal sources and modes of production of animal heat? Mention the circumstances causing variations in temperature of the human body; and state how the average temperature of the body is maintained and regulated. 3. By what means is the eye adjusted to distinct vision at different distances? 4. What are the functions of the sympathetic nervous system? Name the ganglia composing it, and state the location of each. 5. What is the total amount of the excreta, estimated as carbon and nitrogen, daily eliminated from the human body? and what amount and proportions of dry food are daily required for a healthy adult man of average height and weight?

Materia Medica and Therapeutics.—Time, two hours and a half. 1. Give the source and composition of nux vomica, mention its preparations and doses of each; describe its physiological actions in (*a*) small, (*b*) full, and (*c*) toxic doses, and state the therapeutic indications for its use. 2. Give the officinal preparations of antimony, with doses of each; state the physiological actions of its principal salt, in (*a*) small, (*b*) larger, and (*c*) tonic doses, and mention the therapeutic indications for its use. 3. What is the active principle of calabar bean? State its physiological actions and mention the therapeutical indications for its use. 4. What is the source and composition of colchicum? Mention its preparations and doses of each; give its physiological actions and state the therapeutical indications for its use. 5. Name the fifteen officinal alkaloids. 6. State the principles upon which counter-irritants act, and mention the therapeutical indications for their use.

Practice and Pathology.—Time, three hours and a half. 1. Give an account of the etiological and clinical history of diphtheria. 2. What are the symptoms of acute peritonitis? 3. Give the etiology of dilatation of the heart. 4. What are the principal causes of epilepsy? 5. Describe the treatment of typhoid fever. 6. How should you treat a case of delirium tremens? Give prescriptions in full. 7. Give an account of the pathology of tuberculosis. 8. Give an account of the pathology of Asiatic cholera. 9. Define eczema. 10. What are the principal diseases dependent on changes in the spinal cord?

Surgery.—Time, three hours and a half. 1. What is the theory upon which antiseptic treatment in surgery is based, and how do the agents used modify the processes of inflammation? 2. Compare the effects of the principal agents used for producing general anæsthesia. 3. How is dislocation of the head of the femur on the dorsum ilii usually caused? What are its characteristic signs, and what is the *rationale* of its treatment by manipulation. 4. What are the causes, predisposing and exciting, of erysipelas? What circumstances influence prognosis? How would you treat a severe case? 5. What evidence would lead you to believe that the lung had been wounded in a penetrating wound of thorax, and how would you treat such a case? 6. In a case of gunshot fracture involving the ankle-joint, what conditions liable to be present would influence your decision as to operative or conservative treatment? 7. Explain causation of organic stricture of urethra. What are its most frequent situations, and how does situation modify treatment? What diseased conditions may result from untreated urethral stricture? 8. What is the pathology of trachomatous conjunctivitis and its results when unrelieved? How would you treat a case?

Obstetrics and Diseases of Women and Children.—Time, two hours and a half. 1. What symptoms indicate the existence of placenta prævia, and how would you treat such a complication occurring in labor? 2. What complications may arise in labor from abnormal conditions of the funis? What considerations guide you as to time of tying the funis? 3. Mention the chief conditions with which an ovarian tumor may be confounded and how a diagnosis is to be made. 4. What do you understand by subinvolution of the uterus? What are its causes and what its effects? 5. How

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The only Pepsine used in the Hospitals of Paris for the last 30 Years.

Unlike the various substitutes which, in most cases, are but unscientific or incompatible compounds, forced upon the Medical Profession as aids to digestion by extensive advertising, but which, when submitted to the proper tests, are found to be useless as digestive agents, Pepsine is constantly gaining in the esteem of the careful practitioner.

Since the introduction of Pepsine by Boudault and Corvisart in 1854, the original BOUDAULT'S PEPSINE HAS BEEN AT ALL TIMES CONSIDERED THE BEST, as is attested by the awards it has received at the Expositions of 1867, 1868, 1872, 1873, in 1876 at the Centennial Exposition of Philadelphia, and in 1878 at the Paris Exposition.

The most reliable tests, carefully applied, will satisfy every one thot BOUDAULT'S PEPSINE HAS A MUCH HIGHER DIGESTIVE POWER than the best Pepsines now before the Profession, and is therefore especially worthy of their attention.

BOUDAULT'S PEPSINE is prepared in the form of Pepsine Acid and Pepsine Neutral. It is sold in bottles of one ounce, with a measure containing exactly five grains, also in bottles of 4, 8, and 16 ounces for dispensing.

BOUDAULT'S WINE OF PEPSINE.

Formula of Dr. Corvisart.

The taste of Pepsine being perfectly disguised in this Wine, it may be recommended to persons who have difficulty in taking Pepsine in the form of powder. This Wine is tested so that a tablespoonful of it is equal in digestive power to ten grains of Boudault's Pepsine in powder.

SOLD ONLY IN 8 oz. BOTTLES.

GRAND NATIONAL PRIZE OF 16,600 FRANCS.

QUINA-LAROCHE

This **meritorious Elixir, QUINA-LAROCHE**, is prepared from the **three Cinchonas**; it is an agreeable and doubtless highly efficacious remedy.
—*The Lancet.*

VINOUS ELIXIR,
A STIMULATING RESTORATIVE,
—AND—
ANTI-FEBRILE TONIC

QUINA-LAROCHE under the form of **a vinous elixir** contains the **totality** of the numerous principles of the **three** Cinchona barks. It is a preparation which renders great services to **Therapeutics.**—Extract of the *Gazette des Hopitaux*, Paris.

Far Superior to all Ordinary Cinchona Wines.

LAROCHE'S QUINA, tried by the Academy of Medicine of Paris, is a specially prepared Compound Extract of Quinquina; a careful analysis, confirmed by experience, has shown that most of the wines and syrups hitherto used have not contained all the properties of this precious bark, of these some, although beneficial, are altogether lost, while many preparations contain but half the properties of the bark in varying proportions.

M. Laroche, by his peculiar method, has succeeded in extracting all the active principles of the quinquina, combining these with *Catalan Wine* forming an Elixir free from the disagreeable bitterness of other similar preparations Practitioners have found triple advantages in the use of this Elixir; it is a *strong tonic*, is easly administered, and perfectly harmless, being free from the unpleasant effects of Quinine.

THE FERRUGINOUS QUINA-LAROCHE is the invigorating tonic *par excellence*, having the advantage of being easily assimilated by the gastric juice; without, in any way deranging the action of the digestive organs, proving itself to be a most efficacious remedy in cases of impoverishment of the blood, Anæmia, Chlorosis, Intestinal Hæmorrhage, Gastralgia, Exhaustion, Etc., Etc.

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FOR BOTH INTERNAL AND EXTERNAL USE.

LISTERINE.

Formula—*Listerine is the essential antiseptic constituent of Thyme, Eucalyptus, Baptisia, Gaultheria and Mentha Arvensis, in combination. Each fluid drachm also contains two grains of refined and purified Benzo-boracic Acid.*

Dose—*Internally: One teaspoonful three or more times a day (as indicated), either full strength, or diluted, as necessary for varied conditions.*

LISTERINE is a well-proven antiseptic agent — an antizymotic — especially adapted to internal use, and to make and maintain surgical cleanliness—asepsis—in the treatment of all parts of the human body, whether by spray, irrigation, atomization, or simple local application, and therefore characterized by its particular adaptability to the field of

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Physicians interested in LISTERINE will please send us their address, and receive by return mail our new and complete pamphlet of 36 quarto pages, embodying :

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Diseases of the Uric Acid Diathesis.

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LITHIATED HYDRANGEA.

KIDNEY ALTERATIVE—ANTI-LITHIC.

Formula—Each fluid drachm of "Lithiated Hydrangea" represents thirty grains of FRESH HYDRANGEA and three grains of CHEMICALLY PURE Benzo-Salicylate of Lithia. Prepared by our improved process of osmosis, it is INVARIABLY of DEFINITE and UNIFORM therapeutic strength, and hence can be depended upon in clinical practice.

Dose—One or two teaspoonfuls four times a day (preferably between meals).

Urinary Calculus, Gout, Rheumatism, Bright's Disease, Diabetes, Cystitis, Hæmaturia Albuminuria, and Vesical irritations generally.

We have had prepared for the convenience of Physicians **Dietetic Notes**, *suggesting the articles of food to be allowed or prohibited in several of these diseases.*

These Dietetic Notes have been bound in the form of small perforated slips for Physicians to distribute to their patients. Mailed gratis upon request, together with our latest compilation of case reports and clinical observations, bearing upon the treatment of this class of Diseases.

LAMBERT PHARMACAL COMPANY,

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RHEUMATISM.

DIETETIC NOTE.—A fruit and vegetable diet is most favorable for patients with chronic rheumatic troubles.

Allowed.—Beef and mutton in moderation, with horse-radish as a relish; fish and eggs, green vegetables and fruit, especially lemons. The skimmed milk diet has been advocated by some authors.

Avoid.—Starchy and saccharine food; all malt liquors, wines and coffee.

would you diagnose a case of spasmodic catarrhal laryngitis from one of membranous laryngitis before expulsion of membrane? How would you treat a case of membranous laryngitis? 6. What is the pathology of essential infantile paralysis? What groups of muscles are most liable to be affected? What permanent results may be produced?

MISAPPLIED INGENUITY. — An Indian contemporary narrates some curious instances of misapplied ingenuity on the part of certain habitual criminals in that country. The discovery on a prisoner of a heavy leaden bullet, about three-quarters of an inch in diameter, led to an inquiry into the object to which it was applied. It was ascertained that it served to bring about the formation of a pouch-like recess at the base of the epiglottis. The ball is allowed to slide down to the desired position, and it is retained there for about half an hour at a time. This operation is repeated many times daily until a pouch of the desired size results, in which criminals contrive to secrete jewels, money, etc., in such a way as to defy the most careful search, and without interfering in any way with speech or respiration. Upwards of twenty prisoners at Calcutta were found to be provided with this pouch formation. The resources of the professional malingerer are exceedingly varied, and testify to no small amount of cunning. The taking of internal irritants is very common, but would-be in-patients very frequently overshoot the mark and render recovery impossible. Castor oil seeds, croton beans, and sundry other agents are employed with this object in view, and the medical officers of Indian prisons have to be continually on the lookout for artificially-induced diseases, which baffle diagnosis and resist treatment. Army surgeons are not altogether unfamiliar with these tricks, but the British soldier is a mere child in such matters compared with the artful Hindoos. —*Med. Press and Circular.*

THE odor of cancer can be removed from the hands by applying oil of turpentine after a thorough cleansing with water and bichloride.

Teacher: "What is the plural of child?"

Boy (promptly): "Twins."

CREOSOTE IN PHTHISIS AND PULMONARY TUBERCULOSIS.

[*Med. Press and Circular.*]

Prof. Sommerbrodt is an enthusiastic believer in the special virtues of creosote in phthisis and pulmonary tuberculosis. After an extensive use of the drug he gives us statistics of 5,000 cases he has treated in hospital. He claims for it the power of improving the appetite, limiting the secretions, and diminishing the irritable cough. Its primary virtue, however, is its anti-bacterian property, which checks the progress of the baneful disorder. He supports his belief by pointing to Guttman's bacterian experiments with the tubercular bacilli, which he cultivated in glycerine and destroyed with a 1 : 4,000 solution of creosote. From this experiment Guttman himself reasoned that, if he could get this quantity into the circulation without injury to the organism, he might be able to arrest the progress of the bacilli; but when he considered that a man of 60 kilos (9 stone) contained 4,615 grammes of blood (9 lbs.) that would mean upwards of one gramme of creosote to be present in the circulation before any good effect could be expected.

From this data Professor Sommerbrodt postulates his treatment, and has capsules made, each containing 0.05 grm. (0.77 grain). Three of these capsules are given on the first day, four the second day, five the third day, and so on till twenty-one or twenty-nine, which he gave in three cases, are given, which would represent 1.35 gram. of the drug taken daily. This exactly completes Guttman's hypothesis of creosote, and Sommerbrodt believes that the facts of his results are perfectly consonant with Guttman's presumption. He points to a case sent him last year by a military surgeon. The patient was an officer in the army with marked tuberculosis, dulness over the fossa supra spinata dextra, rhonchi, emaciation, increasing cough, with spit, in which the bacilli and elastic tissues were to be found in great quantities. A year before this he had pleuritis sicca dextra.

On September 1 the creosote treatment commenced, and by September 18 he was using twenty capsules a day. On September 29 the morning sputa had very few bacilli with a few fibres of elastic tissue. On November 1 he returned to duty, general health improved, dulness disappeared, and morning cough left him in a short time. During the whole winter he attended to his duty in the midst of snow and rain, during which period he gained twenty pounds in weight. By the month of April this year every sign of tuberculosis had disappeared, and perfect health seems now to be established.

From September 1 to June 1 he had used 5,400 capsules, representing 270 grammes of creosote (nearly 7 ounces), and 1,080 grms. of balsam of Tolu (33 ounces) with which it was combined. He assures us that he has treated many other cases in the same way. Although actual experiments with animals do not confirm this opinion, Sommerbrodt is convinced that creosote does more than improve the digestion, according to Klemperer, or reduce the secretions, as Cornet believes. Sommerbrodt proposes that Koch should examine the blood serum of a patient after a month's use of gramme doses, and he thinks he will find that all bacilli have disappeared. He advises the creosote to be administered immediately after food, which may be taken either in the form of capsule, tincture, or wine.

THE ANTISEPTIC ACTION OF AMMONIA.—One of the facts now becoming abundantly sustained with regard to the effect of organisms on the organic bodies on which they live (albuminoids, etc.) is that the products of bacterial activity tend to limit and finally to destroy the vitality of the growing organisms. Not only is this so with bacteria, but it is well known, and can be readily demonstrated by experiment, that the products formed by digestive ferments from albuminoids or carbohydrates tend to "choke" ferment activity, which indeed revives when the products are removed, as, for example, by dialysis. Ammonia is one of the commonest products of putrefaction. It is formed not only by the action of putrefactive bacteria on albuminoids, but is a result of the decomposition of urea, which occurs from the action of the bacillus urea. Gottbrecht has lately tested the anti-fermentative action of ammonia. In his experiments he did not use the gas itself, but carbonate of ammonium, which, although less volatile than the gas, readily develops ammonia. It was found that a two per cent. solution of this salt delayed the decomposition of portions of fresh organs for nine days, a five per cent. solution for nineteen days, while a ten per cent. solution delayed it for thirty days. In mixtures in which decomposition had already occurred ammonium carbonate added to the amount of five per cent. after a time killed the organisms; while a two and one-half per cent. admixture of the salt diminished their activity. On the other hand, it was found that smaller proportions of ammonium carbonate, one-fourth to one per cent. not only did not diminish, but actually increased the activity of the organisms, so that putrefaction became more rapid. This is only another example of a very large class of substances, which in small doses increase activity, in large doses diminish it; many of the drugs which act on the heart have this action. It might be considered that the action of carbonate of ammonium on putrefactive changes was due to the state of alkalinity produced in the liquid; but that this is not so is shown by the fact that sodium carbonate added to the same degree of alkalinity does not possess any anti-putrefactive action.—*British Med. Journal.*

THE INJECTION OF COCAINE IN SPASTIC CONTRACTION OF THE JOINTS (*Centralblatt für Chirurgie*, No. 23, 1889).—In primary inflammatory contraction of the joints, that is, in those cases where a contraction of the joint results from an inflammation of any of the constituents of the joint, Lorenz recommends (*Wiener klin. Wochenschrift*, No. 9, 1889) as the simplest and surest treatment for the removal of the muscle-spasm, injections of cocaine into the respective space of the joint. He uses for this purpose a common Pravaz syringe with a somewhat longer needle, and injects with antiseptic precaution one-half or a whole of a syringe of a ten per cent. solution of cocaine into the joint. Immediately after the injection the pain disappears, and a few minutes later the joint may be put into correct position and fixed, or extended. This mode of treatment is especially recommended for the correction of spastic club-foot. Children bear cocaine very well; in adults more caution is necessary, a few centigr. often being sufficient to produce the desired effect. In Albert's clinic a general narcosis is no longer used for primary inflammatory contractions.—*Jour. Am. Med. Assn.*

GONORRHŒA IN THE MALE.

By W. T. Belfield, M.D.

[*Peoria Med. Monthly.*]

The literature of gonorrhœa for centuries abounds in specifics for the immediate and radical cure of that disease; it has doubtless happened to many of us in private practice to see a case which we had reckoned gonorrhœa yield most readily to some new remedy that we chanced to be trying in our search for something to ameliorate the condition of a patient so afflicted, yet none of these specifics have ever warranted the conclusions drawn from them by their original endorsers, because none of them when adopted in a long series of cases has produced the results claimed for them. The reason for this is not far to seek; it lies in the fact that our diagnosis is frequently amiss. We have formed the habit of calling every urethritis (with a history of intercourse a few days previous to the beginning of the disease) a gonorrhœa; and so confident are we of our diagnosis that we usually assume the prior intercourse even when the patient denies it. The work of Neisser, and still more the investigations based upon this in connection with the specific micrococcus, have shown that a very large percentage of cases which clinically pass for acute gonorrhœa are not such. They are not, as a rule, cases caused by intercourse during or soon after the menstrual period, but they are due to a renewed activity of a gonorrhœal poison which has lain in a man's urethra for months or years. Such investigations have shown that a man having once had gonorrhœa is liable, certainly as late as four years thereafter, to present many or all of the clinical features of gonorrhœa, without a fresh infection, even without intercourse. A case now under my observation illustrates it. A young gentleman had gonorrhœa some two and a half years ago, and the discharge lasted, off and on, for about three months. Since that time he has occasionally had the morning drop that is so common in people who have once had gonorrhœa, but has never had, so far as he knows, a second attack. He sought my advice, as he had previously sought that of others, because of the presence of occasional strings visible in the urine. The matter worried him, although occasioning no discomfort. Examination showed that he had a slight constriction, and so I first painted the urethra with iodine and glycerine, through an endoscope, a number of times, and then passed a No. 19 sound. The sound passed without particular difficulty, but within twenty-four hours he had the beginning of what developed in two days into an apparently perfect gonorrhœa. According to his own statement, he had not indulged sexually for four months, because he was anxious to do everything he could to get rid of his strings, the remnant of his gonorrhœa, and he knew avoidance of sexual indulgence was necessary. That discharge had all the microscopic appearances of gonorrhœa, including Neisser's gonococcus; was profuse, yellow, and accompanied with some smarting, but nevertheless it entirely disappeared within five days. Had I been using some new remedy upon that case and noticed that disappearance within five days, assuming that it was a gonorrhœa and at the same time that he was lying when he said he had no sexual indulgence, it would have been an admirable case for proving the curative power of such specific.

The developments of the last eight years make it possible in many cases to recognize what is and what is not gonorrhœa. Such investigations make it evident that a great deal of what we usually call and treat as acute gonorrhœa is not fresh infection, but is simply the excitement of a purulent discharge in the urethra of a man who has at one time had a gonorrhœa. An investigation shows that the seed for such an outburst is present frequently in the urethra for months or years in the shape of a few of these organisms, perhaps inhabiting some little follicle, possibly living in some of the numerous little pockets in the mucous membrane of the urethra.

The whole history of the treatment of gonorrhœa has yet to be written, because the literature we have is very inaccurate and contradictory, owing to the lack of accurate diagnosis. Of course, we must regard gonorrhœa as an infectious disease due to a microscopic organism, and when we look at the treatment of other infectious diseases due to other microscopic organisms, the hope of finding a remedy which will check immediately or abort gonorrhœa is not very well supported, for much as is the light thrown on the etiology of disease by researches about bacteria, yet thus far no decided therapeutic advance has been made. So far as I am aware, hygiene and prophylaxis, rather than direct therapeusis, have been advanced.

The discovery that the disease was due to an organism raised hopes that it might be checked by the application of some germicide, so-called. Yet investigation into the morbid processes concerned in gonorrhœa showed that it was impossible to make the application. Were the organisms limited to the epithelium it might readily be accomplished, but researches have shown that the growth of the organism begins almost immediately in the paraurethral tissue, especially the lymph spaces; no germicide introduced into the urethra by injection or otherwise can reach the organisms themselves, and hence no injection or other local application can hope to stop the disease.

In the treatment of gonorrhœa the general principles laid down are about as follows: First of all to give the urethra as much rest as possible, avoidance of sexual excitement and certain articles of diet, and the use of certain remedies which tend to make the urine bland. Probably pure sandal-wood oil is as satisfactory as any. One little item which is not properly emphasized by the books or teachers is the value of making the urine alkaline. We do in a general way prescribe an alkali, as a rule, but we do not take pains to see that the urine is made alkaline. It makes great difference in the comfort of the patient. The amount of alkali that is required to keep the urine free from acid will vary. One minim of liquor potass. every hour in the day, or three or four drachms of bicarbonate of potassium scattered throughout the twenty-four hours. The local treatment is a question about which there has been a great diversity of opinion, partly, at least, well grounded in results. Certainly we ought to reject everything partaking of the nature of instrumental interference with the urethra during the acute stage. The introduction of any instrument whatsoever is disadvantageous, even disastrous. I feel keenly on that point because I have at different times tried the use of various instrumental appliances. Some years ago I used the endoscope in about twenty cases, and packed the urethra almost from the triangular ligament forward with iodoform, boracic acid, bismuth, etc. It was my misfortune to see three case of epididymitis occur out of these twenty. Then, some four or five years ago, when Dr. Holbrook Curtis, of New York, advanced his theory of hot-water injections, I employed that method in twelve cases, and had the misfortune to see two cases of epididymitis. As it has been my fortune not to see epididymitis in cases where there was no instrumental interference, I felt convinced that the occurrence of these five cases of epididymitis in thirty cases of gonorrhœa with instrumental interference was more than a coincidence. Naturally we should expect on general principles that the less we irritate an inflamed surface the less likelihood there would be of complications, which are certainly favored by irritation. The question whether there shall or shall not be injections used is one over which much argument has been offered.

During about nine months' service at a large dispensary I treated all the cases of gonorrhœa—I cannot say how many, but certainly a large number—without any local treatment whatsoever, and I could not see that the time required in their recovery was any greater than it had been in cases where the usual injections of mineral astringents, acetate of zinc, lead, etc., had been employed. So far as my limited experience goes, these mineral astringents have no value whatever, except in the latest stage. In the last four or five years I have seen advantage in the use of other material as injections — some form of hydrastis, usually with bismuth or gum arabic, and, if there is much pain and swelling, cocaine or morphine. These are used during the first ten or twelve days; after that a mineral astringent may be of service. Injections should be used after each urination, assuming that the urination is at ordinary intervals during the day. One thing I am in the habit of insisting upon is the use of a half-ounce syringe. The average druggist will give the patient a glass syringe, which is not desirable, and a small one unless the patient is instructed to get a half-ounce syringe. The ordinary urethra holds about half an ounce, and if we are going to use an injection, we want to do it thoroughly. We want to unfold the mucous membrane and apply the injection to the surface, so far as may be. We can hardly hope by any local injection to cover thoroughly the urethral surface, because of the existence of the lacunæ. We read in every anatomy about these lacunæ, which exist in the urethra, but unless we have looked over and cut open many urethras, we have no idea of how numerous they are, and that about half of them open backward toward the bladder. In the posterior half of the pendulous urethra these pockets open regularly backward. That being the case it is impossible to pass an injection into them. It is practically impossible to get an injection in those opening forward, and it is absolutely impossible to get it in those opening backward. It is in these pockets, doubtless, that these little colonies of micro-organisms find a home, and remain for months or years, until called into activity by favorable surroundings—excessive indulgence on the part of the patient with women, etc.

There is one other item that might be worthy of mention, which is the use of cotton in collecting the discharge. Every one who is at all fastidious about his person has a great objection to the escape of the discharge on his clothing, and the average man takes a little cotton and inserts it under the prepuce, and thus secures more or less freedom of the linen from stain. I believe this is detrimental, because it occludes the urethra and shuts up the discharge. In every other case of suppuration we want free drainage, and the urethra naturally drains itself freely, because of the muscular contraction natural to it. I think a great many patients do themselves harm by wearing this cotton. I am accustomed to direct those who will take the trouble, to avoid that detriment and yet protect their linen, by wearing a condum, in which is placed the cotton, and which is brought up in such a way as not to fit firmly against the meatus. The condum is attached by tapes, or bands, to the shirt; not by having the neck tied around the organ, as that would produce congestion also.

MIXED INFECTION IN GONORRHŒA.—(Gerheim, *Centralblatt für Gynäkologie.*) Analogous to the definite sequelæ which are observed in various affections and which, as proved by bacteriological investigations, are caused by the entrance of various micro-organisms into the tissues at the same time, are the various complications of gonorrhœa, such as inflammation of the erectile tissues, peri-urethral abscess, bubo, prostatitis, vesical catarrh, gonorrhœal rheumatism, peri- and parametritis, inflammation of the Fallopian tubes, bartholinitis, and endocarditis. These are mixed infections produced by the gonococcus together with other pathogenic micro-organisms. The author adduces, in substantiation of this statement, the assertion of Bumm that the gonococci develop only in cylindrical epithelium, or in tissues which, in their histological structure, are closely related to cylindrical epithelium, and the fact, as experimentally demonstrated by Rinecker, that when gonococci are injected into the connective tissues they disappear without leaving a trace behind them. Throughout the entire course of gonorrhœa, however, opportunity is afforded for the entrance of other pathogenic organisms through the ulcerations of the mucous membrane. These find, in the profuse secretion present, the very best conditions for their propagation and further advance into the lymph and blood channels, whereby the complications of gonorrhœa arise. Were it not that gonorrhœa is a purely local affection of a mucous membrane provided with cylindrical epithelium, these complications would be observed very much oftener. The relative frequency of these complications, however, is explained by the readiness with which micro-organisms other than those of the gonorrhœal variety find their way from the diseased mucous membrane of the genitalia into the tissues and lymph channels.

Bumm has discovered a yellowish-white diplococcus which, as well as the staphylococcus aureus and albus (which are often found in gonorrhœal complications together with the gonococcus), may easily be confused with the gonococcus and thus mislead one into the belief that the pathological process is a uniform one, whereas, in point of fact, it is a question of mixed infection.—*Jour. of Amer. Med. Association.*

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations. LEONARD FREEMAN, M.D.,
J. C. OLIVER, M.D.,
OTIS L. CAMERON, M.D.,
F. O. MARSH, M.D.,
Curators and Microscopists.

EXCISION OF THYROID IN GOITRE.

[*Med. Press and Circular.*]

Dr. Puky, Buda-Pesth, has recently removed six goitre tumors with success by partial excision. It may be remembered that surgeons have not been successful in the past in the total removal of the thyroid gland, although at one time it was assumed as a logical operation, and strumectomy recognized as a surgical term. Before this had been long adopted it was found that total removal of the thyroid gland produced a cachexia, which went by the appellation of cachexia strumapriva, or more properly cachexia thyropriva. This cachexia thyropriva appears about a month after the excision of the gland, and after the wound has healed, in the form of a general illness, accompanied by a number of changes, as swelling of the face of a yellow, wax-like color, and the patient's movements give one the impression of an idiot. Later on, the legs and arms begin to swell, the surface of the body becomes dry, swollen, soft to the touch, no perspiration, the hair dry, accompanied by shivering. When these symptoms are coming on the patient feels the legs and arms weak, with a cold, crawling sensation on them, while the general activity of the body is reduced. Muscular paralysis, or atrophy, sets in, but the most remarkable symptom is the slow, clumsy mode of speech, which the patient attributes to his tongue being too thick and heavy.

With this change of the body the brain equally suffers. The patient becomes dull and apathetic, mental activity becomes lost, and complains of his sight and hearing. The internal organs give no indication of change. The chronic cases observed resemble an accentuated state of anæmia, except that the white blood corpuscles are increased, while the number of the red corpuscles are diminished. What the real cause of this train of symptoms is due to has puzzled inquirers and physiologists to explain. It is to be observed that this cachexia thyropriva takes place as commonly after the removal of a cystic goitre as after a parenchymatous goitre, without any relation to the magnitude of the operation, the blood lost, or the healing process of the wound. But when the gland is partially removed these symptomatic phenomena are absent, which forces us to conclude that the removal of the gland disturbs the hæmogenic function of the blood. But it would appear that this functional change is not similar to that performed by the spleen or the marrow of bone, else these functions might be increased to such an extent as to carry on a fairly normal condition of the body. It is also remarkable that, after thyrectomy, no one has observed either any enlargement about the spleen or leukæmia. Dr. Crede supposed that after removal of the spleen the hæmogenic function was carried on by the thymus gland, as it was found in his cases where he had removed the spleen that leukæmia soon appeared, and that four months after the operation the thymus gland became tender and greatly swollen, but that after the tenderness and swelling disappeared the blood returned to its normal condition. From this Crede inferred that there was a reciprocal function between the spleen and the thymus gland. How far we can follow these hypotheses is very doubtful, but it is evident that the thymus gland has some direct or indirect function in the hæmogenic process of the organism, but whether the function is confined to the selecting of material from the blood which it elaborates or transforms, or whether it appropriates a particular product of the hæmatic fluid which is indispensable for the proper nutrition of the nerve system, is not yet clearly understood. From the fact that the cachexia thyropriva phenomenon does not appear immediately after the operation of thyrectomy, but coming on weeks and months after, and approaching gradually, leads many authors to believe the disorder to be of a nervous character rather than hæmatic. Puky now carries us further into a maze of probabilities, and assures us that myxœdemas also produce this cachexia thyropriva, as the thymus gland becomes reduced, in some cases almost disappears.

He related two cases of myxœdema observed by Dr. Ujfalussy, where in one of the cases the thymus gland was greatly enlarged, but Puky thought this case more properly belonged to the acromegalia, which was closely allied to myxœdema, as the former is more prone to attack bony processes. In accordance with this knowledge of the thymus he conducted his operations with the object of removing only part of the enlarged thyroid gland, in which he was successful in averting this cachexia thyropriva. All the cases healed within twenty-four days, and are doing well.

THE VOCAL CORDS AND THE HYO-EPIGLOTTIDEAN LIGAMENT.—Sutton (*Jour. of Anat. and Phys.*, Jan, 1889) concludes, from an extensive comparison of the larynx of man with that of a number of lower animals, that "the false vocal cords, with the cuneiform cartilages, are the degenerate representatives of the piece of cartilage by means of which the epiglottis and cornicula laryngis were originally united, and with the cornicula must be regarded as vestigal structures."

The true vocal cords he regards "as arising from the tendinous metamorphosis of those fibers of the thyreo-arytænoideus muscle subjacent to the laryngeal mucous membrane." To make the latter hypothesis complete it is necessary to find a case in which the vocal cords in man are composed in part or wholly of muscular tissue. No such specimen has yet been found, but the author does not despair of eventually finding one, especially as a patch of striated muscle has been detected in at least one case in the anterior flaps of the mitral valve in the adult.

The hyo-epiglottidean ligament is the fibrous representative of a well-formed muscle in many mammals. He has twice seen it replaced by a distinct muscle.

The objection that it is not likely that muscular tissue should metamorphose into such highly elastic tissue as is found in the true vocal cord he meets by quoting certain muscles in the wings of birds, some of which are entirely replaced by exceedingly elastic tendon—perhaps even more elastic than the true vocal cords of man.—*N. Y. Med. Jour.*

THE study of contagion of to-day is essentially the study of the work of parasites or minute living beings which subsist on other living beings. The contagious fevers of men and animals are now nearly all demonstrated to be the result of propagation in the system of the most minute of these living beings, the bacteria.—*Prof. Law.*

SANDER & SONS' Eucalypti Extract (Eucalyptol). Apply to DR. SANDER, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Greifswald.

PROGRESSIVE NEUROTIC MUSCULAR ATROPHY.

[*Jour. Amer. Med. Association.*]

J. Hoffman (Archiv. für Psychiatrie, xx, 3.) bestows the above name on an affection of which he reports an original case, with further observations on three cases which had been previously described by F. Schultze, and an abstract of the literature of the subject. The disease seems to be a rare one, but he finds observations by Eulenburg, Eichhorst, Hammond, Charcot and Marie, Herringham, Tooth and Osler. It is in a marked degree hereditary, usually affecting several members of a family, and descending, in some of the recorded cases, to the sixth generation. Males are more frequently affected than females, and healthy females, in families subject to the disease, may bequeath it to their male offspring.

It may appear in infancy, and usually develops in early life, but cases are recorded in which the first symptoms were observed after thirty years of age. It probably begins with atrophy of the small muscles of the feet, but is apt to escape attention until the muscles of the legs become involved. Next in order, the small muscles of the hands are attacked, and subsequently the forearms, the thighs, and, in some cases the muscles of the trunk are invaded. Deformities result, varying according to the degree in which the different muscles are affected. The feet assume the position of talipes equinus, varus or equino-varus, the hands that of "main en griffe." These deformities, with the striking differences which usually exists between the degree of atrophy of the distal and the proximal segments of the limbs, impart a very characteristic appearance to the patient. The affection is symmetrical, and proceeds from the most remote segments of the limbs toward the trunk. Although there is a tendency to anchylosis of the joints there are no contractures. Fibrillar twitchings of muscles have been observed in some cases. Tendon reflexes and mechanical excitability gradually disappear. The same is true of the electrical reactions; at a certain stage of atrophy the "reaction of degeneration" is present; ultimately all response to both faradic and galvanic currents ceases. Sensibility is impaired in less degree than the motor functions, and there is no uniform relation between the two.

Two autopsies are on record, one by Virchow and one by Friedreich. In both the muscles and nerves of the parts involved were found to present the changes characteristic of the degenerative atrophy of the nerves. Sclerosis of the columns of Goll was found in the spinal cord. From the course of the disease and the post-mortem appearances the author concludes that it is primarily an affection of the peripheral nerves. The prognosis, as to recovery, he considers entirely unfavorable, although the disease may be arrested for an indefinite period, and is not incompatible with long life. No cases are on record in which it proved directly fatal, but the possibility of such a result cannot be excluded. No remedies, thus far, have seemed to be of any avail.

Surgical Treatment of Abscess of the Lung and Empyema.—Certain points bearing upon the surgery of the chest seem to be unfolding themselves to our view:

1. We are losing our fear of exposing the pleura and the lung, just as we have learned, step by step, how to deal boldly and safely with the peritoneum.

2. The evil of admission of air into the pleural cavity is not the mere exposure of the pleural surface to the air—is not that the lung collapses by the mere admission of the air—but that where there is a fairly healthy lung and pleura, the inrush of air reduces to a serious extent the mechanical power of the thoracic wall over the function of respiration.

3. That in cases in which this mechanical difficulty threatens the life or impedes the recovery of the patient, surgery must decide upon the best method of closing the wound to the inrush of air while allowing adequate drainage of any pus cavity to be carried on.

4. That the region of the diaphragm is a situation in which abscesses amenable to surgical treatment frequently occur, such abscesses often commencing below the diaphragm, and tending to discharge through the diaphragm and through the lung.

5. It seems probable that such abscesses can be more safely attacked through the lower angle of the thorax, provided there be dulness at the seat of puncture, than through the abdominal wall.

6. As to washing out the cavity of a large pleural, or pulmonary, or hepatic abscess, it is probable that antiseptic washing is of value in the early period, while the cavity is offensive; but that, as soon as the secretion has become sweet, washing is not only unnecessary, but tends to disturb the comfort of the patient and retard his progress. If drainage be effective, so that fluid does not lodge, the fluid, which is sweet when secreted, should escape from the cavity before it has time to deteriorate.

7. As to the question of excision of portions of rib in treating empyema, on this point I am unable to speak from personal experience. The tendency of surgical opinion seems to be rather to reserve it for special and exceptional cases, than to make it a general rule of practice.—Dr. Teale, *British Med. Journal.*

Treatment of Abscess of the Liver.—Mon. Chauvel (*Le Bulletin Médical*) had the opportunity to observe four cases of abscess of the liver in military hospitals. These abscesses occurred in soldiers returning from Tonquin and Algiers, all of whom were markedly anæmic as the result of dysentery. The air of their native country had at first ameliorated their condition, but soon the attacks of dysentery and diarrhœa recurred, with febrile exacerbations, quotidian fever, intercostal pains, either vague or localized in the hepatic region, pain about the scapula, and absolute anorexia. Abscess of the liver was diagnosticated, the diagnosis being verified by means of an exploratory puncture. The development of these various symptoms was much more sudden in the cases of the soldiers from Tonquin than in the single instance of the one from Africa.

In two of the cases the abscess occupied the right lobe, in the other two the left lobe; these latter cases terminated fatally.

Incision with the bistoury presented no serious difficulties; it corresponded with the seat of swelling, at which point the puncture had been made with the trocar.

The following are the conclusions derived from a study of these four cases:

1. Immediate, direct incision of abscess of the liver by means of the bistoury presents no danger as regards the development of peritonitis, if it be made antiseptically.

2. The opening should be large and lead directly into the abscess cavity. On account of the retraction of the liver after the evacuation of the fluid, it is well to make it as high up as possible; if it retract upon the collapse of the ribs, resection of the latter may be indicated.

3. It is useless and perhaps dangerous to suture the liver to the edges of the parietal wound.

4. The large opening should be made early, and the exploratory punctures are clearly indicated as soon as there is a suspicion of pus.

5. It is almost always impossible to recognize the existence of multiple foci with sufficient accuracy to reject the possible intervention of an accessible tumor. In these perplexing cases the large incision in the principal focus causes the disappearance of one of the sources of fever; it favors the opening of the secondary foci into the principal cavity, already emptied, and if it does not arrest the progress of the affection at least it exerts no unfavorable influence upon its course.

Abscesses of the left lobe appear to be the more serious, a fact which may, perhaps, be explained by the possibility of a pericarditis by extension, and by the probability of other collections of pus in the large right lobe.—*Jour. Am. Med. Assn.*

VERY HOT COMPRESSES IN SURGICAL PRACTICE.—Professor I. I. Nasiloff, writing in the *Vrach*, gives an account of several cases of inflammation of the lymphatic glands, which he treated with very marked success by means of very hot compresses. These compresses consisted of a fourfold piece of linen, rather larger than the surface over the affected glands. It was dipped into water nearly or quite equal to 212° F., wrung out, and applied quickly over the glands, its own temperature being then from 140° to 165° F. These applications were made morning and evening, the compress being allowed to remain on, covered over with cotton-wool, for about fifteen minutes. As may be supposed, the application produced somewhat severe pain, but this did not last long, though sometimes not only redness, but a blister, was caused. The treatment was continued for about a fortnight. It was found that it very soon began to promote absorption; this action was always accompanied by a rise of temperature, depending apparently upon the size of the diseased glands, and upon the extent to which absorption was taking place. It was noticed that the earlier the treatment was adopted the more effective it showed itself. Professor Nasiloff believes that hot compresses are a valuable form of treatment, not only in strumous glands, but in rheumatic osteo-myelitis and in fungoid inflammation of the joints.—*Lancet.*

REMOVAL OF MOLES BY ELECTRICITY.—If the growth is the elevated, warty mole, its removal by electricity is admirable. The brown pigment mole may also be destroyed in this way, but it is not quite as clean cut an operation. With the warty mole, I inject into it a few drops of four or six per cent. cocaine, and as soon as it is benumbed I transfix the growth at the base, exactly on the level of the adjacent skin, the needle having previously been connected to the negative pole of a galvanic battery. I use about eight milliamperes current, equivalent to about twenty cells of a thirty-six-cell battery, if in good condition. One could use from twelve to sixteen, or even twenty cells. The positive sponge electrode may be held by the patient in the hand, unless the current would pass through the eye, when a small sponge electrode must be pressed upon the face at some point that would avoid this objection.

Very soon after the current is completed, bubbles of gas pass out along the points of entrance and exit of the needle, and the mass becomes blanched. Hold the needle there half a minute to a minute. Transfix again at right angles, taking care to interrupt the current by taking off the sponge electrode before the needle is withdrawn, and also taking care to introduce the needle again before completing the current. If the mass is very large, or is very fibrous, transfix a half-dozen times at different points, but always on the exact level of the skin adjacent. In this way a layer of dead tissue is formed by the electrolytic action of the current, at the base of the mole, and on the level of the skin. The main mass dries down, and dies from lack of nourishment, and in five to eight days drops off, leaving a smooth, pink spot, which, in a month or so, will fade away almost entirely. The mole dries down into a dark crust before dropping off.—HOYT, *Columbus Med. Jour.*

THE CRANIAL NERVES.

[*N. Y. Med. Journal.*]

The *Journal of Physiology* for April, 1889, is wholly given up to a very able article, by Dr. W. H. Gaskell, on the cranial nerves and the central nervous system. He treats of the nerves seriatim, commencing with the third, as the optic and olfactory do not conform to the type of the remainder. The oculo-motor ganglion he considers to be a typical motor vagrant ganglion peculiar to this nerve, and not a posterior-root ganglion, as a number of morphologists have supposed. It is not connected with any large-fibred sensory nerves from the fifth nerve, but is connected only by very fine efferent nerve fibers mainly from the third. The fourth is very similar in structure to the third; both are efferent and divisible into a large- and a small-fibered part. The large fibers of the fourth supply the superior oblique, but the destination of the small fibers is not known. In each are strands and clumps of fibrillar tissue, which, he concludes, are the remnants of nerve fibers and cells, which were of importance in by-gone animals, but have become useless and lost their protoplasmic contents. Originally they were complete segmental nerves, with both motor and sensory roots, but the sensory portions have degenerated, and their place has been taken by the sensory elements of the fifth nerve.

The fifth and sixth nerves are really three—two efferent and one afferent. The roots of the motor part of the fifth contain the remains of nerve fibers and ganglia precisely like those in the roots of the third and fourth. In the sixth he finds no regular ganglion formations, and hence concludes that primitively the motor part of the fifth and the sixth nerves together form a complete segmental nerve. The ascending root of the fifth is independent.

The seventh, like the motor part of the fifth, is essentially a splanchnic efferent nerve, as the striated muscles it supplies are all of the visceral group, being derived from the lateral plates of the mesoblast. It is divided into groups of large and small fibers, of which the larger pass as motor nerves to the facial muscles, while the smaller enter the geniculate ganglion. The majority of these fine fibers form a separate root known in man as the intermediate nerve. In some of the lower animals this intermediate nerve can not be demonstrated, but the bundles of fine fibers are found to have a strong tendency to be grouped apart from the rootlets containing the large fibres of the seventh nerve and pass directly into the geniculate ganglion. This ganglion he considers, like the oculomotor, a vagrant efferent ganglion. The evidence of the structure and function of the seventh nerve shows that it corresponds to a complete segmental nerve in that its efferent root contains a large-fibered non-ganglionated splanchnic portion and a small-fibered ganglionated splanchnic portion with its vagrant ganglia—viz., the geniculate ganglion and the submaxillary ganglion. There is also evidence of a degenerated ganglionic structure close to the exit of the nerve from the brain. So in this group of cranial nerves formed by the third, fourth, motor part of the fifth, sixth, and seventh nerves there are four fully formed segmental nerves which for some reason have lost a certain portion of their original components.

In the next group—those which arise from the medulla oblongata—we again find all the components which make up a fully formed spinal nerve, or rather group of nerves, but with no sign of degeneration of any special group. There is, however, a scattering of the different components, so that the nerves form parts of a number of segmental nerves instead of each one forming a single nerve. The sensory portion of the trigeminal belongs to this group. The group consists of at least five complete segmental nerves which are both cranial and spinal in origin. A characteristic of this group is the extensive peripheral distribution of its nerves.

Gaskell submits this possible explanation of the ancestral history of the spinal cord:

"It was originally composed of a bilateral chain of ganglia situated ventrally to a non-nervous tube, the parts of each chain being connected together by commissures also situated ventrally to the tube. By the increase and spreading round of the nerve cells and nerve fibers to the dorsal side, the original tube was so invaded by nervous elements as to have lost its original character and become the supporting structure of the spinal cord, leaving as the most marked indication of its original character the epithelial lining of the central canal and the peculiar structure of the substantia gelatinosa centralis."

THE ANGLE OF THE NECK WITH THE SHAFT OF THE FEMUR.— Professor Humphrey (*Journal of Anatomy and Physiology*, January, 1889), being in doubt in regard to the correctness of the generally accepted statement that the angle of the neck with the shaft of the femur becomes lessened and the level of the head of the bone consequently lowered in advancing years, undertook the examination of a large number of femora of subjects of various and known ages. His conclusions he formulates thus:

1. That the angle formed by the neck of the thigh bone with the shaft varies considerably in different persons at any given period of life.
2. That it is smaller in short bones than in long bones, and that it is also most likely to be small when the pelvis is wide, the combination of these two conditions rendering it usually smaller in women than in men.
3. That the angle decreases during the period of growth, but that after growth has been completed it does not usually undergo any change, even if life is continued to extreme old age. Some change may take place in exceptional cases, but, as a rule, the angle remains the same from the adult period till death, at whatever age that may occur.
4. That if during growth the limb be relieved of the weight of the body, as in the bedridden state of paralysis or in a stump, the angle of the neck with the shaft usually retains the open form of early life, or even may become wider.—*N. Y. Med. Journal.*

CHRONIC NERVOUS URTICARIA TREATED WITH ANTIPYRIN. — Dr. Nitot, in an article appearing in the *Journal de Maladies Cutanées* for June, 1889, speaks of the value of antipyrin, in daily eight-grain doses, in the treatment of chronic nervous urticaria. Four cases were treated, and the following conclusions arrived at:

1. Chronic nervous urticaria is a malady which seems to be confined to the female sex.
2. Antipyrin usually effects a rapid cure in such cases. Old standing ones will, however, require longer treatment.—*Med. News.*

Bibliography.

ON THE TREATMENT OF THE MORPHINE HABIT.

By DR. ALBRECHT ERLENMEYER. Translated from the German. Detroit, Mich: Geo. S. Davis, 1889.

The difficulty of properly treating the morphine habit has led to the devising of many methods, the introduction of many so-called antidotes, and the founding of many institutions. Probably no author is better prepared to advise on the subject than is Prof. Erlenmeyer. The little work under consideration being one of the Leisure Library series, is but a single chapter of the complete work of its author, which appeared in 1883, a second edition being required in 1887.

The author prefers the "rapid" method of removing the drug from the patient, as contradistinguished from the "sudden" and the "gradual." The greater part of the treatment, and the more important part, is that of the period of convalescence. The entire course, according to his method, requires six weeks.

The translator, Dr. E. P. Hurd, of Newburyport, Mass., tells us that "The aim of this little volume, in fact, is to give a plain, concise, and practical presentation of the therapy of morphinism, according to Erlenmeyer's teachings." A chapter is included which gives his method of treating the cocaine habit. J. M. F.

THE URINE, THE COMMON POISONS, AND THE MILK. Memoranda, Chemical and Microscopical, for Laboratory Use.

By J. W. HOLLAND, M.D., Professor of Medical Chemistry and Toxicology, Jefferson Medical College of Philadelphia. Illustrated. Third edition, revised and much enlarged. Philadelphia: P. Blakiston, Son & Co., 1889.

We cannot improve upon the description of this work which is given in the preface: "This book is intended to be used as a syllabus for the laboratory. The text is made brief and to the point, so as to make a pocket volume, handy for reference. Leaves are left blank for calculations, memoranda, or more extended notes to be made by the student." The book is well adapted to its use, as is shown by the rapidity of its editions. The union of the subjects considered is a happy one, giving the book importance to the practitioner as well as to the student. J. M. F.

THIRD ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF OHIO, for the Year ending October 31, 1888.

Columbus: The Westbote Co., State Printers.

We have reason to be proud of our State Board of Health. For a young organization it has done a very creditable amount of work during the time embraced in this report. A large part of the Report is given to details, which, although important and indicative of great activity, detract from the general interest to the reader. On the other hand, we have yet to meet with a report which shows more plainly the exact amount and the value of the sanitary work which is being done throughout the State. This we think is a highly commendable feature. Lengthy dissertations on medical subjects, no matter how studiously prepared or how creditable to the writer, can find a better place than in the annual reports of health boards, where they serve the writer's ambition rather than the public good.

J. M. F.

CORYZA. — The following method of application is suggested in a Swiss pharmaceutical journal: A jug is half filled with boiling water, into which a teaspoonful of well-powdered sugar is thrown. A funnel-shaped paper cap is then placed on top of the jug, and a hole torn in it just fitting the nose. The camphorated steam is inhaled through the nose for ten or fifteen minutes, the inhalation being repeated if required every four or five hours. If the patient resolutely persists with the inhalation, in spite of its unpleasantness, it is said that three repetitions will always effect a cure, however severe the coryza may be. —*Med. Abstract.*

WORLD'S EXPOSITION OF 1892. — The editors of the Chicago papers make a vigorous plea and presentation of their claims for the greatest show on earth in the celebration of the Columbian Discovery.

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CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, September 14, 1889. *WHOLE VOLUME LXII.*

Original Articles.

ERRORS OF PHYSICIAN AND PATIENT IN A CASE OF VESICAL CALCULUS.

A Paper read before the Rush County (Indiana) Medical Society, September 2, 1889,

By J. C. Sexton, M.D.,
Rushville, Ind.

Stone in the bladder is common enough, and operations for cure are such every-day affairs that some unusual circumstance must be presented for a given case to have value. The unusual circumstance in this instance is simply a review of the errors of omission and commission that occurred in the case. If an open confession is good for the soul, it will surely not injure the value of a paper if it tells the whole truth.

"Doc.! I'm in a heap of trouble," said an old man to me on coming into my office on June 29. Seventy-seven years old and suffering for more than two years with constant pain in the bladder, which increased to extreme agony on urination. Vesical tenesmus and at times vesical hemorrhage, with little control over the sphincter ani during micturition. Compelled to empty his bladder every hour during the night and every few minutes during the day, having a bursting, tearing pain in the glans penis. No rest. No continuous sleep. Loss of appetite and strength. Poor in wealth—poor in spirit—poor in health. Nights of agony and days of torture. All because a half-ounce or so of matter was in the wrong place. This constituted his "heap of trouble."

Expressing my fears that he had a stone in his bladder, he stated that Dr. Moffett had examined him with a silver catheter and found none. Examination revealed a calculus in a contracted bladder. No enlargement of prostate, quantity of pus in urine not excessive, and no more albumen than the pus would account for.

Advised operation, to which the patient consented, and on August 12, assisted by Drs. Moffett, Pugh, Parsons, and M. Sexton, I made an external urethrotomy, dilated the prostatic urethra, crushed and removed a stone, and, as thought at the time, perfectly cleared the bladder without incising the neck. Dr. M. Sexton also explored the bladder, and in all the tests that we were able to make it was evident that the organ was empty.

The patient rested well that day and night. On the second day he had a great deal of pain, which by night had increased to such a degree that it was decided the bladder was not being properly drained, removed the tube and adjusted a different one. Relief followed, and he was perfectly easy until the night of the third day. Now began paroxysms of suffering of such character that on my visit the next morning the tube was removed and a search made, finding that a portion of the stone had been left in the bladder. On the arrival of assistance he was placed under an anesthetic and the operation completed four days after it was begun, by removing one hundred grains more of the mass.

The case has no further interest. Convalescence was rapidly established and patient went on to perfect recovery.

The failure to find the stone on the part of the Doctor was due to the fact that the instrument used was entirely unsuited to the purpose. On two other occasions this calculus eluded both the silver catheter and lithotomy staff, but was readily detected by the Thompson's searcher. This failure is of no consequence compared to my error in not finding all the fragments after crushing the mass. Even before crushing at all it was for some seconds concealed in some fold of the organ, and only deep depression of the fundus by my assistant brought it again into reach. The fundus was depressed several times after the organ was thought to be empty, but the large fragment was completely overlooked. I have heard gentlemen talk of the "cunning" of a stone, and I admired the coolness with which I once saw one of America's most eminent surgeons work faithfully to remove a stone which successfully eluded his forceps, his scoop, his finger, and his skill. Such things can happen, gentlemen, not to you, perhaps, but to me; and in my opinion digital exploration of the bladder is not the easy affair that some writers seem to think. It is stated that the examining finger can touch every portion of the bladder wall. Pardon me if I confess to the belief that these gentlemen must have very long digits or their patients very shallow perinei.

This procedure has many advantages and does vastly less injury than any operation that divides the prostate gland and neck. In soft, unhypertrophied prostates the time spent in dilating is trifling, and the opening in most cases affords room for manipulation. Another reason for choosing this method is because the operator can avoid wounding the vesico-prostatic plexus of veins—a no inconsiderable matter in an aged patient who has had a good deal of vesical tenesmus. So while I do not think, as stated before, that complete exploration is thus perfect or possible in every case, yet it is the least dangerous manoeuver that can be done in the way of a cutting operation. This method also has advantages of drainage that make it in certain instances superior to litholapaxy.

Those of you who have examined the specimen closely have noticed that the nucleus is a bit of stem from some weed that had been pushed into the bladder. The patient states that in June, 1887, he had introduced into the urethra a long, delicate piece of vine, to see if the trouble he was having in the urinating was due to a stricture. On withdrawing the improvised bougie he noticed it was not quite so long as before. We know the history of cases of this kind, and throw the mantle of charity over what may be the language of truth or only a story concocted to cast aside suspicion; for the fact remains that the weed "got there" whether the old man did or not.

The calculus weighs 296 grains, and is composed almost entirely of uric acid.

CONSTITUTIONAL SUSCEPTIBILITY TO TUBERCULOSIS.

Abstract from an Address read before the British Medical Association,

By JOSEPH COATES, M.D.

[*British Medical Journal.*]

I might further illustrate the principles which I have been endeavoring to enforce by other examples, but I turn now to two diseases concerning which considerable confusion exists, as I think, in regard to their relations to the constitution—I mean tuberculosis and cancer. I have already referred to the difference between constitutional susceptibility and constitutional disease. In what I have already said there has scarcely been any possibility of confusion between the two terms, as the illustrations have been selected in order to exhibit the nature of constitutional susceptibility. We have seen that it is in these cases related to local characteristics. In the case of tuberculosis and cancer we have a more difficult subject, chiefly because in these diseases we have to deal both with constitutional susceptibility and constitutional disease. It is, I think, because of this that many men find it difficult to conceive of a constitutional susceptibility to tuberculosis or cancer being a purely local condition. I want to make it apparent that the constitutional susceptibility is local, and that it is only a constitutional state that may be secondarily induced which is general.

Let us take first the case of tuberculosis. We recognize in this disease in the most prominent way the influence of the two factors in the causation of disease to which I have alluded. There is the definite determining cause, the tubercular bacillus, but there is, in most cases at least, the pre-existing susceptibility. While everyone is exposed to the determining cause, it is only the susceptible who succumb. This susceptibility to tuberculosis is constitutional, and in many cases it is hereditary, although the mode of life may determine an acquired susceptibility.

If we look closely at any tubercular disease we shall find that, in man at least, it is always, to begin with, local. So far as I can see, there is no evidence that the tubercular bacillus multiplies in the circulating blood. What happens is that when the microbes gain entrance to the body they are deposited somewhere. If they get leave to lie, there is the contest between them as living cells and the living cells of the tissues. In the liver the hepatic cells, as we have seen, are able to control the microbes; so also are the living tissues generally in most people. But if the bacilli are implanted in an organ which is constitutionally incapable of dealing with them, then they multiply. The person has a constitutional weakness, as it is said, and the local propagation of the bacilli is allowed. This local implantation may be in various places, the commonest being the lungs, the lymphatic glands, the bones, the brain, the testicles, and the kidneys.

I do not think it is likely that there will be, usually, in the same person, a local susceptibility in more than one situation. It is sometimes said that tuberculosis of the lymphatic glands or scrofula, is seldom associated with phthisis pulmonalis, but I know of no actual observations on this point. I should expect that inherited susceptibility would be entirely local, and that it would determine one or other of the local manifestations.

But tuberculosis, wherever its seat, usually produces constitutional manifestations, fever, emaciation, frequently amyloid disease. It does so, not necessarily or usually by the bacillus passing into the blood, but rather by the evolved products doing so. I think it may be said that whatever their seat, the bacilli do not produce tuberculosis by their mere presence, but rather by the poisonous principles which they evolve. These are probably alkaloids, and are soluble in the juices of the body. They are diluted by the fluids, and in this form may be carried away from the local seat, and pass on into the blood. I believe that it is the presence of these products in the blood which is the main cause of the fever and other constitutional phenomena. We are to remember also that the occurrence of tuberculosis may lay open the way for the absorption of other foreign products, especially in the case of the lung. The cavities formed in phthisis contain variously decomposing matters, and the products of these may be absorbed. Then, also, necrosis of the pleura often leads to an acute pleurisy, which in many cases is, I believe, a septic pleurisy, and this is a cause of fever. It is apparent to my mind that these constitutional symptoms are the result of the local disease.

An important point comes up here. The local tuberculosis is a focus of infection, and although it is only exceptionally that it gives off bacilli in such numbers as to constitute a proper acute general tuberculosis, yet, from the evidence in regard to the liver which I have already adduced, it would appear that in most cases a few bacilli are being occasionally shed. In cases where a local susceptibility exists in other organs besides the primary seat, we should expect to find that a secondary tuberculosis would be established. It is even possible that the constitutional state induced by the tuberculosis might increase the susceptibility of some organs, or even create it. As a matter of fact, we sometimes find such a local tuberculosis in a second organ. I do not refer to the direct extension of a tuberculosis, say from the lungs to the larynx and intestine, which are so common, because in that case the bacilli in the sputum applied to the larynx, and, by swallowing, to the intestine, are so numerous that, without any special susceptibility, these structures become affected. I refer rather to the occasional occurrence of tuberculosis of the kidney, peritoneum, brain, bones, etc. In my "Lectures to Practitioners on the Pathology of Phthisis Pulmonalis," published last year, I refer to some of these conditions, and make the statement that in a series of cases observed by me, local tuberculosis of the kidney occurred as a complication of phthisis pulmonalis to the extent of about three per cent., and that tubercular peritonitis occurred in a somewhat similar percentage. These observations were made almost entirely in adults, but I am inclined to think that the organs of children show a much greater susceptibility to tuberculosis than do those of adults. When tuberculosis exists in children it is not uncommon to find, in addition to the primary disease, let us say in the lungs, a tuberculosis in bones, kidneys, and elsewhere, but seldom or never in the liver. In this way what Weigert has called a chronic general tuberculosis is established, this condition being nothing more than a series of local tuberculoses. This condition, occurring as it does mostly in children, would indicate either that their organs are more susceptible than those of adults, or else that in them the bacilli find their way in larger number into the blood. It is possible that in the growing tissues the blood-vessels are more easily penetrated by the bacilli than in the mature tissues of adults.

There is still another matter which rather complicates the position in regard to tuberculosis. I believe that tuberculosis in man is always, to begin with, a local disease, and is preceded by a local susceptibility, but in some cases at least a general want of vigor in the body as a whole—a general constitutional weakness—precedes and apparently determines the local weakness. It is natural that any local constitutional weakness should be emphasized by a general deterioration of the health. On the other hand, it must be admitted that there are persons who show such a pronounced proclivity to phthisis pulmonalis that they are attacked in spite of an apparently robust condition of the general health. These are chiefly cases of inherited susceptibility, in whom also the local susceptibility is sometimes shown to be very great by the rapidity with which the disease extends.

TREATMENT OF PNEUMONIA BY APPLICATION OF ICE.—Dr. Fieandt, writing in *Duodecim*, a Finnish medical journal, states that he has now treated no less than 106 cases of pneumonia with ice, and with the best results. Though ten of the cases were of double pneumonia, only three out of the whole number succumbed, notwithstanding that the epidemic was by no means a slight one. The method adopted was to apply over the affected lung an india-rubber bag containing ice continuously for from twelve to twenty-four hours after the crisis. In addition to the local treatment, the patients were given such medicines as are usually employed, that is to say, opium, ipecacuanha, digitalis, brandy, etc. The method has, we may remark, received of late some attention in England.—*Lancet*

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations. LEONARD FREEMAN, M.D.,
J. C. OLIVER, M.D.,
OTIS L. CAMERON, M.D.,
F. O. MARSH, M.D.,
Curators and Microscopists.

TREATMENT OF PULMONARY PHTHISIS.

By J. C. WILSON, M.D., Phila.

[*Medical News.*]

Until the present decade, no theory adequate to explain the facts in regard to the origin and nature of the tuberculous diseases, and especially of pulmonary phthisis, had been advanced. One hypothesis after another had been advocated only to be abandomed, leaving a heritage of erroneous views and misleading phrases to encumber the general stock of information. Pathologists, in their eagerness to cope with the most grievous scourge of modern civilized life, generalized upon insufficient data. The progress of knowledge in regard to this group of disease was, therefore, slow and halting. It consisted chiefly in the accumulation of facts, among which there can be found neither coherence nor relation. Many of these facts, collected with untold toil, are to-day without significance or value, except to overthrow the views for the support of which they were gathered. When all was said, it seemed as though the progress from the time of Læennec to 1882 was scarcely worth mentioning. To-day it appears to many of us to have been no progress at all.

Koch's discovery of the tubercle bacillus, and his demonstration of its causal relation to the tuberculous disease, marks an epoch in medical history. Since that time scientific research has taken the place of ingenious surmise, and the evolution of a theory constantly supported by new and interdependent facts has gradually illuminated the darkness that overspread the subject of tuberculosis. It is true that there are yet obscure corners and unsolved problems. The present is a period of transition. But the confusion of the present has this advantage over the chaos of the past: there is a hopeful prospect that out of it will envolve order.

Let us regard pulmonary consumption in all its forms as a type of the tuberculous diseases.

This much may be safely predicated:

Pulmonary consumption is an infectious disease, due to the implantation and development of the tubercle bacillus in the lungs of a susceptible individual.

It is of advantage to present this proposition in its simplest form. It follows that the tuberculous diseases of other organs are infections, likewise due to the access and development of the tubercle bacillus. The pathogenic unity of the tuberculous diseases and the primary localization of the process are obvious deductions. The overflow of local collections of tubercle bacilli, or of matters laden with them, by way of continuous surfaces or perforating lesions, explains the extension or the generalization of the process; thus, for example, from one lobule to another, or to another lobe, or to the opposite lung, or the larynx, or upon deglutition to the intestine, or, again, by the capsule of a lymphatic gland, to a bronchus, or into a vein, with the production of acute general tuberculosis. But acute general tuberculosis is a rapidly fatal disease, presenting strong points of resemblance to the specific fevers, especially to enteric fever. Let us confine our attention to the local lung disease. If it be local, how are we to accout for the constitutional symptoms?

The results of recent researches in the field of the chemistry of the infections render it in the highest degree probable that many of the general symptoms of these diseases are not directly, but only indirectly, due to the bacteria which constitutes the infecting principle. Toxic substances —ptomaines—are continuously evolved during the period of the development of the pathogenic bacteria in the organism. These principles, beingsoluble in the circulating blood, occasion constitutional phenomena analogous to those caused by certain alkaloidal poisons. Several of these substances have been isolated.

The grave constitutional symptoms which are sometimes associated with circumscribed lesions, the general improvement frequently observed during periods of quiescence on the part of the local process, the disappearance of symptoms in cases where the local process becomes obsolescent, the prolonged fair health which is occasionally seen in individuals with extensive but distinctly encapsuled cavities, all lend support to the view that in pulmonary consumption likewise, not the bacillus itself, but ptomaines which it produces, are the cause of the malnutrition, asthenia, fever, sweating, and other general symptoms of the active disease. That these ptomaines are among the products of the disintegration of tissue elements from which the bacteria derive pabulum is obvious. To arrest such tissue-disintegration would mean, on the one hand, to 'prevent the formation of ptomaines; on the other, to deprive the parasite of the pabulum necessary to its growth.

The destruction of pathogenic bacteria outside the body, or the prevention of their access, constitutes prophylaxis. Where measures of this kind are efficient, the question of individual susceptibility or predisposition becomes of minor importance. When such measures are inadequate, the prophylaxis must include efforts to render the individual insusceptible, efforts which have been fully realized by vaccination in smallpox.

In broad, general terms, disinfection includes two processes, which, however, are not in all instances distinctly separated, but which often overlap. These are:

1. The destruction of germs.
2. The sterilization of organic substances.

The first is a germicide process; the second, an antiseptic proces. Measures of disinfection employed in the sick-room and in the treatment of the excreta of the sick are germicide. Here the object is the destruction of bacteria. The processes by which meats are preserved, as by smoking, salting, and the like, and the means taken to preserve pathological specimens and cadavera for anatomical use, are antiseptic. Here the purpose is, not to act directly upon the bacteria which may produce destructive changes, but to act upon substances liable to those changes in such a manner as to render them infertile for the growth of the bacteria.

Efforts have been made to utilize both these methods in the curative treatment of disease. In theory one or the other or both of them are available in the treatment of tuberculosis, a local infection gradually extending by the implication and destruction of new areas of tissue, the elements of which are necessary to the growth and development of the bacillus. Superficial tuberculosis is, under certain circumstances, amenable to germicide treatment in the simplest form. Thus the enucleation of superficial tuberculous lymphatic glands and the effectual scraping and disinfection of the surrounding tissues, now constitute an accepted and efficient treatment. The medical history of the last years teems with the records of unsuccessful efforts to utilize various germicide methods in the treatment of pulmonary consumption. The apparent early successes of several of these methods are to be explained, partly by the enthusiasm of those who have advocated them from the beginning, and partly by the fact that consumptive patients, especially when congregated together in hospitals, are liable to present misleading evidences of improvement for a short time after the employment of methods of treatment at once novel and having a specious appearance of being scientific. Their failure is due to the fact that the tubercle bacillus is more resistant to germicide substances than the tissues which constitute its natural habitat.

Even in the case of exposed tuberculous ulcers or of pulmonary cavities so situated as to be accessible to germicide drugs, either by inhalation or by direct injection through the chest wall, the bacilli in the surface discharges, or in the accessible curdy necrotic material collected upon the cavity walls, are no longer active in causing the tuberculous process. They are simply admixed with material ready to be thrown off, and are dangerous only in so far as they are liable, by transposition to unaffected tissues, to light up new local processes. The bacilli which are active are deeply imbedded in tissues inaccessible to any germicide which does not, at the same time, involve in destruction the parasite and the structures which constitute its host.

One germicide method only, and that the latest, has not yet been shown to be unsuccessful. It is the method of Weigert, and consists in the prolonged inhalation of superheated air. Whether or not the tissues of the human lung can preserve their integrity, when exposed to air of a temperature ranging from 212° F. to 280° F. sufficiently long to destroy the tubercle bacilli imbedded in them, remains to be demonstrated.

In the antiseptic plan we have a method of treatment likewise based upon the pathogenic role of the bacilli. This plan has for its object not to directly destroy the bacillus, but to augment the powers of resistance of the structures which it assails. If the tissue elements can be made to withstand the disintegrating action of the parasite, then the chemical changes by which are elaborated, on the one hand, the nutritive material needed for its growth, and, on the other, the poisons which cause the general symptoms of the disease, would be prevented. To this plan must be referred those methods of treatment which have been generally recognized as beneficial, including measures of hygiene, dietetics, with hyper-alimentation and the administration of fats, pulmonary gymnastics, and climate, the object held constantly in view being such an improvement in the general condition of the patient as to retard or bring wholly to an end the destructive processes in the lungs.

Among medicines, the utility of which has been long and generally recognized, are the preparations of iodine; the preparations of mercury; arsenic; the phenols, especially carbolic acid and creasote.

The members of this group have one striking peculiarity in common, namely, that they are powerful antiseptics. With the exception of the phenols, they belong to the group of medicines known as alteratives; and the question suggests itself, in this connection, as to whether or not their so-called alterative influence is not, to some extent at least, due to an influence which, in long-continued moderate doses, they exert upon the tissue elements of the body in such a way as to increase the powers of resistance of the latter to disintegrating morbific agencies.

Clinical researches in this direction are not without promise. Alteratives of this kind have hitherto been employed simply upon vague opinions regarding their general influence upon nutrition. If they can be shown to exert a special influence upon nutrition antagonistic to the action of pathogenic bacteria, not only will their usefulness be much increased, but clinical problems relating to the mode of administration, dosage, and effects, will at once engage the attention of practical therapeutists.

The existing methods of treatment are unsatisfactory. Germicide methods have proved utterly futile. The suggestion of an antisepsis that will increase the powers of resistance in the living tissues opens up a field worthy of systematic cultivation. Two things are especially needed: first, the earliest possible recognition of the local lesions of pulmonary consumption; second, the earliest possible employment of the combined means which have shown themselves in the hands, not of one, but of many practioners to be useful. These are improved hygiene, dietetics, climate, respiratory gymnastics, and the use of alteratives.

The universal experience of those engaged in making large numbers of postmortem examinations shows a frequency of obsolescent tuberculous lesions in the lungs, such as warrants a large degree of hope in the energetic treatment of the disease in the stage of primary infection. The conventional disregard of the earliest symptoms, both on the part of patients and physicians, is unfortunate. Far better for the doctor to tell the patient his worst fears at once, and institute the treatment at a time when the evidences of tuberculous infection are still doubtful, than to temporize until large areas of pulmonary tissue are implicated, and the growing parasite has become a fruitful source of new infection, both within and outside of the patient.

ASTHMA AND THE UTERINE SYSTEM.—Dr. Peyer has recently written in the *Berliner Klinik*, part 9, 1889, on an affection which he terms sexual asthma. He maintained that asthma was always neurotic, and that in different subjects asthmatic convulsions were brought on by the influence of different physical functions. In two young married women coritus caused violent attacks of asthmatic sneezing. In another case the patient suffered from uterine fibroid, with severe asthma, which disappeared after the removal of the tumor. A patient was subject to violent asthmatic fits; on her becoming pregnant for the first time, the asthma was completely cured. In a similar case, of asthma, the patient suffered from chronic metritis. When the uterine affection was cured, the asthmatic complication disappeared. In all Dr. Peyer's cases the patients were more or less hysterical, and in two there was a distinct family history of neuroses. The physician must be careful now to distinguish between the possible coincidence of true asthma and disease of the sexual functions and the alleged form where the former is an effect of the latter. In the case of coincidence it is perfectly easy to understand that any aggravation of uterine or ovarian disease and any irritation of the sexual functions might aggravate the asthma. The other condition is less easy to understand, and very hard to prove in a scientific manner.—*British Med. Journal.*

THE ADMINISTRATION OF ANÆSTHETICS.

[*Indiana Medical Journal.*]

In the performance of a grave surgical operation there are at least two important personages in whom the responsibility is divided: the operator and the anæsthetist. The latter should be an individual of equal skill and knowledge of medicine with the operator. The duties of each position require careful manipulation and the watching of many little details, which by the use of good judgment may ward off an impending danger. The surgeon can be more perfect in his work if he can entirely exclude from his mind all matters and possible accidents which might occur outside of the domain of his particular task. He can then concentrate his thoughts directly upon his own manipulations if the anæsthetist is a cautious and responsible physician in whom he has full confidence. If this be true, it is unnecessary for the operator to interrogate the anæsthetist in reference to the condition of the patient, which is an occurrence too frequently observed. If the anæsthetist understands the duties that he is to perform, and has a full knowledge of the methods and effects of the operation as he should have, he will communicate to the operator if any untoward condition exists. Thus it is plainly to be seen that the position of both operator and anæsthetist possess a responsibility of equal gravity, unless it might be taken into consideration that the anæsthetist, even in the most trivial operation, must execute the same skill as in one of greater magnitude, while on the whole the per cent. of risk at the hands of the operator is much less in proportion as regards life and death. Only too frequently the importance of carefully selecting a skilled anæsthetist is not appreciated, and is given only momentary consideration. Every physician has had within his observation instances where the anæsthetic has been administered by physicians or students who have had but little or no experience whatever, and in some cases it has been administered by persons who never saw between the covers of a medical book.

These procedures are to be condemned in the strongest terms. If it is necessary for the operator to supervise the administration of the anæsthetic, it not only prolongs the operation, but is an injustice to the patient; and if death takes place from the anæsthetic, the surgeon must bear a large proportion of the responsibility and is deserving of censure. If the people do not understand the fact that there is a grave responsibility on the anæsthetist, then it is a neglected duty of the physicians that they have not educated them on the subject. These two factors, if allotted the importance and deserved consideration, will prove to be in many instances an integral part of success, while otherwise it might have resulted in a consummate failure or even death.

In reference to the selection of an anæsthetic, there should be a mutual agreement between the operator and the anæsthetist, but if their opinions differ the operator should waive in favor of the anæsthetist, for upon him devolves the responsibility of its proper administration. If this course is not pursued, then it is preferable to select another person rather than compel the anæsthetist to use an anæsthetic against his own judgment. In the vast range that surgical science is pursuing at this time, it behooves all surgeons to take advantage of every point that will contribute to the success of their work, and eliminate as far as possible every element of danger.

ON HYPNOTISM AND SUGGESTION IN THE TREATMENT OF MENTAL DISEASES. —At the recent Congress of Experimental Hypnotism, held in Paris, August 8–12, 1889, M. Aug. Voisin, of Paris, referee, spoke of the treatment of mental diseases by hypnotism. Till 1880, hypnotism in the insane was considered an impossibility. At this epoch M. Voisin succeeded in a case of acute mania; then he sought to hypnotize other insane patients, and succeeded in obtaining hypnosis in ten per cent. of the patients. He has applied hypnotism to combat the vices, the grovelling inclinations, the abuse of medicines, certain defects of the intelligence, the neuralgias, the contractures, etc., in the insane.

Much time and patience, he says, are required; one must repeat ten and even twenty times the attempts. Lethargy or somnambulism must be obtained, but better the former. Let the patient sleep half an hour or an hour at the first *séance*, and do not commence suggestion until the second.

M. Voisin takes up but one delirious conception at a time, and lets the patient sleep a long time, even twenty-four hours. The "suggestion" must be uttered distinctly and imperiously. The patient must be disengaged from all external influences, then each hallucination must be combated successively; his delirium *must be worn out piecemeal.* Then the patient is persuaded that a cure is possible, and lastly this is affirmed.

The lunatic sometimes manifests bad temper when his hallucination is combated; it is then necessary to insist until his consent is obtained. The operator should be careful not to suggest illusions of any kind; he should give only good advice, counsel work, etc.

Voisin claims excellent results from this practice, in the troubles and hallucinations of the senses or of the general sensibility in dyschromatopsia, in anæsthesia and hyperæsthesia, in neuropathic paralysis and contractures, and in onanism. He claims, moreover, to have found hypnotism very efficacious as a means of moral discipline in degenerate and profoundly vicious children. He has observed relapses in a tenth of the cases, and has found it necessary frequently to renew the treatment.

At the same meeting, Dr. De Jong spoke of the value of hypnotism in melancholia. This is one of the psychoses most favorably influenced. He has also known hypnotic suggestion to cure agoraphobia, the fear of thunder, the "*folie de doute*," and writers' cramp! — *Boston Med. and Surg. Journal.*

SALICYLIC ACID IN THE TREATMENT OF MALIGNANT SCARLATINA.—Dr. Shakowski writes in the *Revue Mensuelle des Maladie de l'Enfance* that he has administered salicylic acid with the greatest success in one hundred and twenty-five cases of grave scarlatina occurring in children, the mortality being reduced to three and one-half per cent. Ordinarily his method of administration was in the form of a mixture consisting of one part of salicylic acid to seventy-five parts of water, and thirty parts of syrup of orange-peel, a teaspoonful of this being given every hour during the day and every two hours during the night. He writes that under the influence of this remedy the temperature is rapidly reduced, in certain cases even at the end of forty-eight hours, the temperature falling four degrees. Habitually all traces of fever disappear after the tenth day of the disease. Nevertheless, the author advises to prolong the treatment for some time longer than this in progressively decreasing doses, so as to avoid any danger of relapse. Through the use of this remedy the author believes that he has avoided the most serious complications of scarlatina, such as uræmia, anasarca, and diphtheria. He claims that this medication will only be ineffectual when given too late,—that is, after the fourth day of the disease, or when there exists some grave chronic complication.—*Therapeutic Gaz.*

SOCIETY NOTICES.

Academy of Medicine.—

September 16, Dr. Ransohoff will read a paper on "Cerebral Surgery;" Dr. David DeBeck will report a case of "Abscess of the Orbit."

September 23, Dr. Geo. A. Fackler will read a paper on "Gastric Ulcer, with Jaundice," and report a case; Dr. E. G. Zinke will report a case of "Rupture of the Liver.

September 30, Dr. B. K. Rachford will report some "Experimental Studies on Typhoid Fever," and Dr. J. M. French will read a paper on "Treatment of Typhoid Fever."

Cincinnati Medical Society.—

September 17, Dr. Wm. L. Mussey, "Death from Chloroform;" Dr. F. W. Langdon, "Antiseptic Solutions."

September 24, Dr. Dan Millikin, "Fever."

October 1, Dr. George H. Goode, "Diphtheritic Affections of the Eye;" Dr. B. M. Ricketts, "Care of the Skin without Soap or Water."

October 8, Dr. F. O. Marsh, "Recent Anatomical Study of the Spinal Cord, and Paths of Conduction;" Dr. Philip Zenner, "Clinical Significance of the Tendon Reflexes."

October 15, Dr. F. C. Gorbs, ———.

October 22, Dr. Theo. Bange, "Milk Inspection of Cincinnati, with Suggestions for Dairy Reform;" Prof. Karl Langenbeck, "Milk Adulteration, and the Milk Supply of Cities."

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

Terms, $3.50 per annum in advance.

☞ All letters and communications should be addressed to, and all checks, drafts and money orders made payable to
DR. J. C. CULBERTSON,
Editor and Publisher,
199 W. 7th Street, Cincinnati, Ohio.

Cincinnati, September 14, 1889.

The Week.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

This organization convened promptly in Evans Hall at 10 a.m., September 10. The President, Dr. Geo. J. Cook, of Indianapolis, made a very brief address of less than five minutes in length. We firmly believe in the virtues of brevity, but sometimes even this may be carried to an extreme, as in this instance. This may be pardoned when we consider his feelings, as he unfolded a program having on it a list of ninety-eight papers, most of which he could fairly anticipate hearing read during the three days' session of the Association, and not only read but discussed.

Proceeding to business, the first paper called for was by Dr. G. V. Woolen, on "Nasal Differentiation," on which pertinent remarks were made by Drs. W. F. Porter, of St. Louis; De Vilbis, of Toledo; and Reynolds, of Louisville.

On the principle that extremes do naturally follow each other, the nether end of man was the theme of the next paper, by Dr. G. M. Matthews, of Louisville, in which he portrayed to his hearers a simple method of treating "Fistula in Ano" by the use of a fistulatome constructed on the same principle as the ordinary urethratome, the knife having two, three, or four cutting edges. Dr. Matthews qualified the method of treatment by saying that it was only adapted to cases where the sinus is comparatively straight; that in cases where the channel is tortuous and there are several channels it is always the best to cut it out and scrape the track with a dull spoon, in the language of the gynecologist, to curette the parts. This paper was discussed by Dr. Dixon, of Henderson, Ky., and Dr. Murdoch, of Pittsburg, Pa., the former expressing his opinion that the use of the knife for complete divulsion is always the best method, while the latter spoke on the advantages in many cases of stretching the sphincter with the thumbs.

A paper on "Analgesics, Antipyretics, and Sedatives," by Dr. I. N. Love, of St. Louis, was a careful presentation of the new coal-tar derivatives, antifebrin and exalgin, in which he narrated the results of his use of these preparations in a very large number of cases, and almost universally with advantage to the patient and great satisfaction to himself. He especially directed attention to exalgin, a new preparation of very great value as an antipyretic and sedative, taking occasion to impress upon his hearers a valuable suggestion: That where sedatives and narcotics are demanded in treatment, the physician should *always* carry and himself administer those remedies. We most heartily concur with him as to the value of this procedure. The paper was discussed by a number of those present, in which was developed a very general opinion as to the great usefulness of the bath in febrile diseases, and the combination of antifebrin and exalgin with quinine.

"Plasto-Cosmetics in Surgery of the Face" was the subject of a valuable paper by Dr. B. M. Ricketts, of Cincinnati, and drew out remarks by Dr. Geo. H. Rohe, of Baltimore. This paper will be published in the LANCET-CLINIC.

"The Accoucheur and his Forceps" was the title of a paper by Dr. A. S. Barnes, of St. Louis, in which he drew conclusions from a most remarkable professional career; in that in private practice alone he had in thirty-five years of practice attended forty-five hundred cases of confinement. Such numbers are usually only obtainable from large maternities and a combination of the business of several practitioners. Dr. Barnes informed me that his business consisted very largely of consultations with midwives. He rarely gave ergot, and doubted its value even in the third stage of labor; he also rarely used anæsthetics. In the latter position he was not sustained by the remarks that followed. We ardently hope the author will thoroughly arrange a statistical record of his practice; it would be of very great interest and value.

"Perineorrhaphy: The Immediate Operation," by Dr. S. E. Mumford, of Princeton, Ind., was a short and practical presentation of this subject, in which he advocated the very great advantages of an immediate stitching of all cases of rupture of the perineum. His method of procedure is to always have the patient placed on a table before a window or where there is a good light, using catgut sutures. His methods received hearty commendation.

The meeting has a larger attendance than last year. In the evening the members of the Association, with about an equal number of citizens, were taken to Garvin's Park. This is a beautiful grove, just outside the city limits, and which was handsomely illuminated with Chinese lanterns and electric lights. Here was spread on tables under the trees a banquet for five hundred people. Mirth, jollification, and good cheer prevailed all around. Dr. Owen was ubiquitous, and we verily believe made every guest feel that he was receiving individual and personal attention, In all this he was ably seconded by the entire profession of Evansville, who, by the way, are a very superior body of men and a credit to themselves, to their profession, and to their city.

The program for the remainder of the session will require hustling to get through.

There are present a good number of the most prominent leaders in the profession, not only of the West, but a fair representation from the East is here, including Dr. W. C. Wile, of Connecticut; Dr. Rohe, of Baltimore; Drs. Murdoch and Early, of Pennsylvania.

The meeting is a pronounced success, for which too much credit cannot be given the officers and local Committee of Arrangements. C.

VACATION MELANGE.

OFF WITH THE OLD AND ON WITH THE NEW.

The summer is past, and with a great multitude of people this means the end of vacation for the year Anno Domini 1889.

The next school year begins some time during the present month. This means something in almost every family. New clothes, and old ones renovated and altered in shape and size. New books, and hunting up of old ones. In the cities and larger towns it means a change of teachers, who have also had their vacation season and are back in their places.

In this particular locality the summer that is past has been very pleasant and enjoyable. No extreme heat and frequent showers have contributed to the comfort of all who have spent the summer in Southern Ohio.

The health of the city has been uniformly good. We learn of a small epidemic of diphtheria in an up-river town, and one of typhoid fever in an Indiana town, both of which are due to unsanitary conditions that indicate a degree of lethargy on the part of the local profession that is not creditable in this year of grace. However, we should not wonder or express surprise at the situation and unhygienic condition of those places, when we learn from our books that there are no subscribers for the LANCET-CLINIC in either town. The probability is that the doctors in those towns confine their professional reading to gratuitous trade circulars and publications.

It is hard on any people that are obliged to suffer retribution, in the way of sickness and death, to say nothing of financial losses, through the necessity of being obliged by force of circumstances to call upon physicians who do not know that the professional world do move.

In professional circles in the city there is already a faint rustling at the announcement of the weekly meetings of the local medical societies in Lancet Hall. The younger men of the profession are especially alive to the work that is before them.

The professors and their assistants in the medical colleges are girding up their loins for a long, strong, and harmonious pull through their annual course of didactic and clinical instruction. Never at any time were the colleges and professors so thoroughly equipped as at this beginning of the session of 1889–90.

The men engaged in hospital practice and clinical teaching have been alive to all the demands of the times, and have provided abundant additional facilities for their purposes. A new hospital has been built and additions made to the old ones. A new dispensary has been opened, which is already flooded with patients.

All of which indicates a degree of professional activity that is creditable to the city as a center of progressive thought and practice.

The opening of new railways has increased the volume of trade and commerce. Correspondingly will there be an increase over the same avenues in the number of young men who will come here for professional training and instruction. The special and superior facilities found here will bring scores of the most ambitious young men in the medical profession who wish to spend one, two, or more months in a post-graduate course in some special branch. This is a kind of instruction that in the very nature of things will increase from year to year. The completion of a professional education by attendance on two courses of lectures is no longer possible. In fact, there is no good place for a man to stop who has once begun the study of medicine. He may have been graduated from the foremost college in the land and delivered the valedictory address, but if he would hold his own in the race for distinction, books and journals must be his constant companions. Wherever he may locate he will have no special desire to be obliged to report to the state health officer that there is a scourge in his town in the form of a preventable disease.

PROFESSIONAL SALARIES IN DUBLIN UNIVERSITY.—A return has just been made to the House of Commons by the authorities of Trinity College, Dublin, in obedience to the motion of Mr. W. A. MacDonald, M.P. The salaries attached to the various professional chairs at the School of Medicine are as follows:

Regius Professor of Medicine .	£100
" " Surgery . .	100
Professor of Anatomy	250
" Surgery	150
" Chemistry . . .	500
" Botany	300
" Comparative Anatomy	100
" Zoology	200

It should be remembered that these salaries are but a small part of the emolument of the chairs, the lecture fee being in some instances five times the amount of the salary. The total number of undergraduates on the books on the 31st of December, 1888, was 981. The gross revenue of the University from all sources is £62,263, and the net revenue amounts to £55,987. The receipts from students amounts to £12,690.—*Medical Press and Circular.*

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

The following is the program of the meeting of the American Association of Obstetricians and Gynecologists, to be held at the Burnet House, Cincinnati, September 17, 18, 19, 1889:

TUESDAY, SEPTEMBER 17.

Morning Session.

ADDRESS OF WELCOME AND RESPONSE.

1. Congenital Sinus of the Urachus. Abdominal Incision. Recovery. With remarks. A. VanderVeer.

2. A Case of Extra-Uterine Pregnancy. Operation and Recovery. L. S. McMurtry.

3. Intra-Uterine Cord Amputation of the Fetal Extremities. Joseph Price.

Afternoon Session.

4. Forceps as a means of Rotating the Head in Labor. Edward J. Ilk.

5. The Rectification of Face Presentations. R. L. Banta.

6. Umbilical Hemorrhage: Its Treatment. Llewellyn Eliot.

7. Management of the Perineum During Labor. A. P. Clarke.

8. Flap-Splitting in Perineorrhaphy, with special reference to Tait's Operation. X. O. Werder.

WEDNESDAY, SEPTEMBER 18.

Morning Session.

9. A Report of Eighty Cases operated upon for Cure of Dysmenorrhœa and Sterility, by Rapid Dilatation of the Uterus under an Anæsthetic. Franklin Townsend.

10. Some Notes on the Action of the Galvanic Current, in the Treatment of Uterine Diseases. Thomas Opie.

11. Peri-Uterine Inflammation: Its Pathology and Treatment. L. S. McMurtry.

12. New Observation respecting the Functions of the Round Ligaments of the Uterus. J. H. Kellogg.

13. The President's Annual Address. Wm. H. Taylor.

Afternoon Session.

14. Vaginal Hysterectomy. E. E. Montgomery.

15. Supra-Vaginal Hysterectomy: Ex-

tra-Peritoneal. Dry Treatment of the Pedicle. Joseph Price.

16. Successful Removal of a Fibrous Tumor of the Right Ovary during Pregnancy. J. H. Carstens.

17. A Case of Metremphysema. T. E. McArdle.

THURSDAY, SEPTEMBER 19.

Morning Session.

18. Animal Suture: Its Place in Surgery. Henry O. Marcy.

19. Sutures and Ligatures: What Material shall we Use? C. Cushing.

20. Peritoneal Effusions. W. H. Myers.

21. The History of a Case of Ovariotomy. W. P. Manton.

22. Reasons for Drainage in Ovariotomy. Hampton E. Hill.

Afternoon Session.

23. Discussion: Is Craniotomy Justifiable in Living Children?

Additional papers will be presented.

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

The following is the preliminary programme of the session of the Southern Surgical and Gynecological Association, to be held in Nashville, Tenn., November 12, 13, and 14, 1889.

OFFICERS.

President — Hunter McGuire, M.D., LL.D., Richmond, Va.

Vice-Presidents—W. O. Roberts, M.D., Louisville, Ky.; Bedford Brown, M.D., Alexandria, Va.

Secretary—W. E. B. Davis, M.D., Birmingham, Ala.

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Chairman Committee of Arrangements—Duncan Eve, M.D., Nashville, Tenn.

PAPERS.

The President's Annual Address. Hunter McGuire, M.D., Richmond, Va.

Report of Gynecological Work, with Especial Reference to Methods. R. B. Maury, M.D., Memphis, Tenn.

Direct Herniotomy, with Cases. W. O. Roberts, M.D., Louisville, Ky.

Open Abdominal Treatment. B. E. Hadra, M.D., Galveston, Texas.

The Abortive Treatment of Acute Pelvic Inflammation. Virgil O. Hardon, M.D., Atlanta, Ga.

The Importance of Early Treatment of Inflammatory Affections of the Uterus. Wm. C. Dabney, University of Virginia.

The Relation of the Nerve System to Reparative Surgery. Thos. O. Summers, M.D., Jacksonville, Fla.

Concerning the Causes of Frequent Failure of Relief of Reflex Symptoms after Trachelorrhaphy. W. F. Hyer, M.D., Meridian, Miss.

Cranial Surgery. De Saussure Ford, M.D., Augusta, Ga.

The Treatment of Ectopic Pregnancy. W. H. Wathen, M.D. Louisville, Ky.

Laparotomy in Extra-Uterine Pregnancy. Waldo Briggs, M.D., St. Louis, Mo.

Epithelioma of the Penis, with the Report of a Case. D. W. Yandell, M.D., Louisville, Ky.

Laparotomy in Intestinal Obstruction. C. Kollock, M.D., Cheraw, S.C.

An Experimental Study of Intestinal Anastomosis. Jno. D. S. Davis, M.D., Birmingham, Ala.

Operative Interference in Ascites. Hugh M. Taylor, M.D., Richmond, Va.

Observations Pertaining to Pregnancy and Parturition. W. Duncan, M.D., Savannah, Ga.

Puerperal Convulsions. Jno. Herbert Claiborne, M.D., Petersburg, Va.

Some Remarks upon Aneurisms, Relating More Especially to their Surgical Treatment. F. T. Meriwether, M.D., Asheville, N.C.

Coccygodynia and its Treatment. Hunter P. Cooper, M.D., Atlanta, Ga.

The Improved Cæsarean Section vs. Craniotomy. W. D. Haggard, M.D., Nashville, Tenn.

Conservative Surgery in Injuries of the Foot. J. T. Wilson, M.D., Sherman, Texas.

Gun-shot Fractures of the Femur. Jno. Brownrigg, M.D., Columbus, Miss.

Tropho-Neurosis as a Factor in the Phenomena of Syphilis. G. Frank Lydston, Chicago, Ill.

Trophic Changes Following Nerve Injury in Fractures, with a Report of Two Cases. Wm. Perrin Nicholson, M.D., Atlanta, Ga.

Treatment of Malignant Diseases of the Rectum. W. T. Briggs, M.D., Nashville, Tenn.

The Achievements of Modern Surgery. J. Ewing Mears, M.D., Philadelphia, Pa.

The Treatment of the Pedicle in Supra-Pubic Hysterectomy. Wm. M. Polk, M.D., New York.

(Some subject pertaining to Abdominal Surgery.) Joseph Price, M.D., Philadelphia, Pa.

(Titles of papers not determined.) W. L. Robinson, M.D., Danville, Va.; W. B. Rogers, M.D., Memphis, Tenn.; L. S. McMurtry, M.D., Danville, Ky.; E. J. Beall, M.D., Fort Worth, Texas.; E. Burke Haywood, M.D., Raleigh, N.C.; Paul B. Barringer, M.D., University of Virginia; J. F. Y. Paine, M.D., Galveston, Texas.

Members of the medical profession are cordially invited to attend.

Hunter McGuire, M.D., LL.D.,
President.
W. E. B. Davis, M.D., Secretary.

Wearing Out of the Eyes.—I clip the following from a paper, which may serve as an additional text, and cause some to think of a prevailing and growing evil, and one that should be rectified:

"The abuse of the eye is the crime of the age. I am prepared to demonstrate that at least nine-tenths of the prevailing sleeplessness of which we hear so much, is due to nervousness directly traceable to the optic nerve. We are wearing out eyes over books and desks and types, and the effect shows itself not only in the appearance of the organ itself, but in its retroactive effect on nerve and brain. I have discovered a remedy for sleeplessness, and for the reason that I have never known it to fail, I am fortified in my opinion that the whole trouble arises from overstrain of the eyes. Take a soft cloth—say a piece of napped towel—and fold in it two small pieces of ice at a proper distance apart to exactly cover the eyes when the cloth is laid across them. Then lie down, adjust the cloth with the ice over the closed eyes, and you will be asleep in a short time."

I have often prescribed medicine for school children when rest for the eyes was the necessary thing. An oculist would have suggested short sight or want of accommodation, or some of the many long-named diseases requiring glasses, and had the children in spectacles, but I imagine there is not such urgent need of education. In Germany you see glasses on many school children, and in this country, I am sorry to say, they are becoming too common. We have a very bad system of education, requiring too much looking, and it is the duty of physicians to help remove the burden of the little ones.

It is a fact that concentrated and prolonged use of the eyes will cause headache, as it will cause nervousness and insomnia. I am not sure of the prescription given in the quotation, as I have used hot water in place of ice; but one thing we can agree on: in such cases permanent relief comes from rest and a better use.

A lady remarked to me recently: "I have been having very severe pain in my forehead, and I thought it due to overuse of my eyes" (she was a crayon artist), "and I cannot get glasses that will enable me to see." I could assure her that I had seen a number of such cases, and that it would be necessarry to give her eyes rest.

I well remember the troublesome year when I was obliged to have recourse to glasses. My eyes hurt, my head ached, and I was generally miserable; and it was not until I realized the cause and stopped using my eyes so much, that I had relief. For three or four months I did not even read the morning paper. It was a lesson learned by personal experience that I have been able to make useful to others.—*Editorial, Eclectic Med. Journal.*

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HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending September 7, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	...	..	3	..	...	..	...
2nd	...	..	...	..	...	..	2	..	...	..	...
3rd	...	..	.	..	...	..	1	..	...	..	...
4th	...	..	1	..	...	..	1	..	...	..	...
5th	...	..	...	..	1	..	...	..	...	..	...
6th	...	..	...	..	...	..	...	..	...	..	...
7th	...	..	1	1	...	..	1	..	...	..	...
8th	.	..	...	..	...	..	...	..	...	..	...
9th	...	..	...	..	...	..	...	..	...	..	...
10th	...	1	...	..	...	..	..	..	...	..	...
11th	2	..	...	..	...	..	...	..	...	..	...
12th	...	..	...	..	...	..	2	..	...	..	...
13th	...	..	...	..	...	..	3	..	...	..	...
14th	...	..	...	..	...	..	...	..	...	..	...
15th	...	..	...	..	...	..	1	..	...	..	...
16th	...	..	...	..	...	..	...	..	...	..	...
17th	...	..	...	..		..	3	..	...	1	...
18th	...	..	...	.	...	..	...	..	...	..	...
19th	...	..	..	..	...	..	5	..	...	..	...
20th	1	..	...	..	...	..	...	..	...	1	...
21st	..	..	..	..	...	..	1	..	...	1	...
22nd	...	..	...	1	...	..	1	..	...	..	...
23rd	...	..	.	..	...	..	2	..	...	..	...
24th	..	..	...	..	...	..	2	..	...	..	...
25th	...	..	..	..	...	..	...	..	...	..	...
26th	...	..	...	..	...	..	...	..	...	..	...
27th	...	..	...	..	...	..	1	..	...	..	...
28th	...	..	...	..	...	..	1	..	...	..	...
29th	..	..	...	..	...	..	...	..	...	..	...
30th	..	..	...	..	...	..	1	..	...	..	...
Cin. Hosp.	.	..	...	..	...	..	...	..	...	1	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	1	...
Marine H..	...	..	..	..	...	..	...	..	...	..	...
Totals	3	1	2	2	1	..	31	..	...	5	...
Last week	2	..	1	..	1	..	26	10	...	1	...

The following is the mortality report for the week ending September 7, 1889.

Cholera Infantum	5
Cerebro-spinal Meningitis	2
Diarrhœa	2
Dysentery	1
Entero-Colitis	3
Measles	1
Scarlatina	2
Typhoid Fever	5
Other Zymotic Diseases	3—24
Cancer	1
Phthisis Pulmonalis	20
Other Constitutional Diseases	7—28
Apoplexy	2
Bright's Disease	1
Bronchitis	3
Convulsions	6
Heart Disease	5
Liver Disease	3
Peritonitis	1
Pneumonia	6
Other Local Diseases	16—43
Old Age	3
Premature Birth	3
Other Developmental Diseases	2— 8
Accidental	3
Suicidal	2— 5
Deaths from all Causes	108
Annual death rate per 1000	17.28
Deaths for corresponding week in 1888	93
Deaths for corresponding week in 1887	105

Byron Stanton, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 40 observers (embracing 34 counties) show the following diseases to prevail for the week ending Friday noon, September 6, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Diarrhœa	28	98
Dysentery	21	34
Cholera Morbus	17	21
Intermittent Fever	12	27
Cholera Infantum	12	19
Tonsillitis	11	21
Rheumatism (acute)	11	13
Bronchitis, acute	10	23
Typhoid Fever	8	20
Remittent Fever	8	12
Diphtheria	5	9
Consumption (Pul.)	5	6
Erysipelas	5	5
Typho-Mal. Fever	4	21
Pneumonia	4	5
Pleurisy	4	4
Cerebro-Spin. Men.	3	3
Scarlet Fever	1	1
Whooping Cough	0	0
Measles	0	0
Puerperal Fever	0	0
Croup, membranous	0	0

Remarks.

Diphtheria reported by observers at Zanesville, Rocky River, Moscow, Somerset, and Summerfield. Reported by health officers: Dayton, 7 cases, 1 death; Middletown, 1 case; Toledo, 3 cases, 1 death; Tiffin, 1 case; Moscow, 7 cases; Millersburg, 4 cases; Youngstown, 1 case; Chillicothe, 2 cases; Salem, 1 case; Columbus, 6 cases. Xenia, 6 cases, 1 death.

Scarlet Fever reported by observers at East Fairfield. Reported by health officers: Findlay, 5 cases; Columbus, 5 cases; New Straitsville, 1 case; Chillicothe, 5 cases; Fostoria, 3 cases, Cincinnati, 2 deaths.

Typhoid Fever reported by observers at Madisonville, Goshen, Miltonsburg, Russelville, West Milton, Sharonville, Upper Sandusky, and Prospect. Reported by health officers: Youngstown, 2 cases; Delphos, 3 cases; Millersburg, 1 case; New Carlisle, 2 cases; Cincinnati, 5 deaths.

C. O. Probst, M.D., Secretary.

THE FREQUENCY OF CERTAIN PREMONITORY AND AFTER SYMPTOMS IN EPILEPSY.

By H. A. HARE, M.D.,
Philadelphia.

[*University Medical Magazine.*]

While statistics without number are given by the many writers on epilepsy in text-books and original articles in journals, it has occurred to me that it might be of interest to determine their frequency not by gathering together all these sources and making averages of them, but by collecting all those isolated cases reported for various reasons in the journals and thus utilize a large amount of scattered material heretofore wasted. Of the many thousands of such cases reported in English and American journals within the past fifty years only nine hundred and seventy could be found which contained one or more statements of the following points of interest: the side of the body most affected, the frequency of the aura and its character, the occurrence or absence of coma after or during the atttack, and the occurrence or non-recurrence of rotation with the direction of rotation. The following results were reached: In only 158 instances out of the 970 cases collected was anything said concerning the side most affected by the fit, and of these 158 cases it was found that the right side was most affected in seventy-seven instances, and the left was most affected in eighty-one instances, results which agree with the statistics of most other writers.

In respect to the frequency of the aura and its character, I found that it was noted as present, in some form, in 362 cases out of the entire number, and absent in 138.

The forms of aura most commonly felt were as follows, being arranged in the order of their frequency:

Tingling	45
Visual	27
"Painful"	26
Twitching	21
"Epigastric"	20
Headache	16
"Auditory"	16
Dizziness	15
Numbness	15
Disturbed respirations	14
"Gastric"	13
Cramps in muscles	11
"Olfactory"	11
"Mental"	8
Chilliness	7
Faintness	3
"Abdominal"	3
Aphasia	3
Unclassified	44

The occurrence of coma is noted as present in 104 cases, and as absent in twelve cases, but this number is probably incorrect since unconsciousness is a much more common after symptom. It would appear, however, from the history of the cases that the coma in these instances surpassed in its severity the mental hebetude so often seen. In 101 cases only is any statement made as to rotation of the body in the fit, and of these forty-nine rotated to the right, and fifty-two to the left; so little difference as to make it appear that both varieties are equally common. I have not attempted to analyze these various symptoms in relation to the total number of cases, because such an attempt is not justifiable owing to the fact that through the carelessness of individual reporters any one of these symptoms may have occurred and yet not been recorded. The numbers represent very well, however, in a general way the relative frequency of these symptoms of epilepsy, and as they have been obtained solely from the isolated cases of the journals they are in no way made up of material already used for analysis.

ACUTE INFECTIOUS PROCESSES IN BONE.—Owing to the progress of the new science of bacteriology, this subject requires thorough investigation. Dr. Roswell Park, of Buffalo, has made some important researches, now published in the July number of the *American Journal of the Medical Sciences.* He came to the natural conclusion that there was no specific microbe for the production of acute infectious processes in bone. Most of the staphylococci could cause them. Exceptionally, the streptococci might exert such an influence, and so might tubercle and typhoid bacilli. In the latter case there was a mixed infection as a rule, the pyogenic cocci being the final and active destructive agents. Of all forms, the staphylococcus aureus was the most pernicious. The parasitic infection might occur through any lesion of the external or internal body surfaces, and from any subcutaneous phlegmon, however small. The infection was not necessarily recent, as staphylococci and the tubercle bacillus could lie latent for a long time. Certain predisposing conditions were usually found to favor the entrance of the infectious germs into the system, and their lodgment in the localities where they manifested the most activity. Of the general causes which favored their entrance, the diathetic conditions, such as the tubercular and the dyscrasial, like the syphilitic, also the post-febrile, played the most conspicuous part. Childhood was always a predisposing cause. Of the causes which favored lodgment in particular localities, exposure, exhaustion, strain, and more marked traumatisms were most usually observed. Pathologically, a case of acute infectious osteomyelitis became within a few hours a case of localized pyæmia, with all that the term implied. The pyæmia might become so generalized within a few hours that a patient might die, even within thirty-six hours after observation of the first symptom, of overwhelming septic intoxication. Acute infectious periostitis might run almost as acute a course locally as the corresponding grade of osteomyelitis; but, as the pus found an outlet more readily in peritonitis, it seldom led to as rapid general infection. Early radical and antiseptic surgical measures were the correct treatment of acute infectious processes in bone. —*Brit. Med. Jour.*

VALVULAR DISEASES OF THE HEART. —Yet another class of cases presents excessive muscular growth, and cavities that have but moderately increased. This state is more often met with in aortic affections, particularly regurgitation; but it may also happen in mitral regurgitation, with or without co-existing aortic disease. The impulse is extended, forcible, and forcible out of proportion to the cardiac percussion dullness; there is often throbbing of the vessels of the neck, dull headache, tension in the pulse, and a feeling of constriction in the chest. Aconite is pre-eminently the remedy; it diminishes the blood pressure in the arterial system and gives great relief. I usually employ two drops of the tincture every fourth or sixth hour, for the first few days of the treatment, and then only twice a day; or give one drop every third hour until an effect on the force of impulse and pulse is produced, and keep up this effect with a drop dose two or three times a day for several weeks, intermitting the treatment and resuming it from time to time. Veratrum viride has similar applicability; it is, however, more apt to nauseate. But I have often had the happiest results from a combination of one-drop doses of aconite tincture with three of tincture of veratrum viride and seven of tincture of ginger. It is an admirable sedative and does not sicken.

Summing up, then, the treatment of valvular affections of the heart, as they present themselves ordinarily, and basing it chiefly on the condition of the cardiac muscles and of the cavities, we find practically three groups:

1. Cases in which no special treatment is required.
2. Cases in which excessive growth and strong action call for aconite or veratrum viride.
3. Cases in which, early or late, and with or without increased muscle, the heart falters and needs support, for which digitalis, used differently according to varying indications, is the principal remedy.

This line of treatment is held to independently of the exact valve affection. It requires tact and experience to adjust it to the individual case. But when adjusted the results are excellent. — DA COSTA, *Amer. Jour. of Med. Sciences.*

THE LOCAL RECURRENCE OF MAMMARY CANCER.—There is no surgeon who has removed many cancerous breasts without witnessing a number of cases in which the disease recurred. The "dinner-plate" incision, as the elder Gross called his favorite operation in mammary cancer, though supplemented by the thorough cleansing out of the axillary space, so much insisted upon by the younger Gross, was certainly a great advance over the former practice in these cases. But, in spite of all, it often happens that cancerous material is often left at the site of operation. To leave a single enlarged lymphatic, or the least bit of cancerous tissue, is to insure the return of the disease. Much as has been done in the surgery of the breast, much remains.—*Amer. Practitioner and News.*

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THE THEORY OF SUPPURATION.

[*N. Y. Med. Journal.*]

The bacteriological theory of suppuration as it is at present accepted will doubtless admit of many modifications before it can reasonably be held to be perfect. Future researches may demonstrate the relative unimportance of the micrococcus as a pus producing agent, and overthrow all the present theories, even as the theories of the past generation have been overthrown. Professor Paul Grawitz, of Griefswald (*Archiv für pathologische Anatomie und Physiologie und für klinische Medicin*, cxvi, 1), by proving the suppuration may be caused by the injection of irritating substances unaccompanied by any micrococcus or ptomaine, has perhaps taken a step in this direction. The experiments were performed mainly on dogs. With the most çareful aseptic and antiseptic precautions, a certain quantity of oil of turpentine was injected subcutaneously, and the wound was closed with collodion. Over this a dressing was placed. A swelling with the external characteristics of an abscess was produced which, when opened, was found to contain a pus-like fluid smelling decidedly of turpentine and perfectly free from pus cocci.

This demonstration is interesting because it indicates a possible danger which may arise from the subcutaneous injection of irritant fluids even under the strictest aseptic precautions, but we do not see how it can have great weight regarding suppuration as it is commonly met with, because practically we do not find abscesses of this nature. It proves that substances exist, in addition to the ptomaines or the micrococci, which, when introduced into the tissues will produce inflammation with the formation of pus, but it does not in the least intimate that the ptomaines do not usually occupy the position held by the turpentine in the experiments as exciters of suppuration.

Grawitz also calls attention to the fact that the resisting power of the tissues of different genera of animals to the action of a given micro-organism differs widely, and insists that more attention should be paid to this when deductions regarding suppuration in man are drawn from observations on the lower animals. His remarks would be much more apposite if the question were, "What is the action of a certain micro-organism on the tissues of man?" But this is not the question. If we grant what we say to be true, still the fact remains that in all animals the destructive process known as suppuration is found accompanied by some micrococcus. That the particular micro-organism differs in the different genera does not preclude the possibility of arriving at a very close approximation to the truth regarding the action of the micro-organism constantly present in human pus, by careful observations of the actions of the various micro-organisms that are constant in similiar conditions in various genera of the lower animals. Still, analogy is not always a safe guide, and Professor Grawitz may be right in his caution. His work bears the mark of much labor, and, though his results are decidedly theoretical rather than practical, they are worthy of notice.

NEW METHOD OF EXCISING THE WRIST.—Mr. Edward Thompson, Surgeon to the Tyrone Infirmary, has lately described (*British Medical Journal*) a method of excising the wrist joint which he believes has not hitherto been recommended. In a case of caries of the carpal bones, in which the disease appeared to be limited to the first row of carpal bones and to the lower extremity of the radius and ulna, he determined to try to save the hand, although the patient, whose sufferings were acute, was anxious for amputation. On the back of the hand, and within half an inch of its ulnar border, there was a large shallow ulcer. The outer edge of this sore was selected as the site of the incision, which ran between the tendons of the extensor communis and minimi digiti, and was about four inches in length. The joint was freely opened, so that its interior could be thoroughly examined. A gouge was then introduced, and the semilunar bone gouged completely away; then each of the neighboring bones was firmly caught with strong forceps, slowly twisted from its connections, and removed. The diseased ends of the radius and ulna were gouged away, and afterwards both bones were sawn across immediately above the seat of disease. A small incision was made on each side of the joint as close as possible to the level of the floor of the joint, and a drainage-tube was inserted. The wound was stuffed with iodoform gauze and dressed antiseptically. A straight splint was placed under the forearm and hand, the palm being supported on a roller bandage. Recovery was uninterrupted and speedy, and the patient has now a useful hand. Mr. Thompson claims for the method that "it is easy of performance and free from danger, and that it does not tear or injure any of the tendons, vessels, nerves, or deeper structures. It is quite bloodless, and does not require removal of any portion of bone which is sound and healthy."—*London Med. Recorder.*

Practical Points about Surgical Dressings.—In a report of four months' service at the Albany Hospital (*Albany Medical Annals*) Dr. A. VanderVeer says that in all 133 operations were done. In 168 cases of surgical lesions treated, there were 8 deaths, 2 due to peritonitis, 2 to uræmia, 2 to the exhaustion of the disease, and 2 to shock. The death-rate was four and one-sixth per cent.

With regard to the dressings used in these cases, he says that the methods have been very simple, and the antiseptic agents used neither new nor novel. To begin with, all the gauze used was of home manufacture; that is, plain gauze medicated chiefly with bichloride of mercury. Plain absorbent gauze can be bought, he says, in two-hundred-yard lots at four and a half cents per yard. This can be conveniently cut and folded in five-yard pieces and treated as follows: It is immersed in a solution consisting of one part of bichloride of mercury, fifteen of tartaric acid, 150 of glycerin, and sufficient water for 1,000 parts; enough eosin is added to give a faint tint. After remaining in this solution for twelve hours the gauze is wrung dry and packed in stoneware jars ready for use. The addition of tartaric acid and glycerine he regards as very advantageous, increasing both the antiseptic and the absorbent power of gauze.

The bichloride gauze was used for making "Gamgee" pads for bandages, and for iodoform gauze, by rubbing iodoform in its mesh. Iodoform and boric acid were used in dressing ulcers, both in powder and in ointment. Boric acid solutions were used in washing the bladder and urethra before and after operations. A one-half per cent. solution of hyrogen peroxide he says was very satisfactorily used about the mouth and nose. It acts also as a powerful deodorant. For flushing wounds, 1–2,000 or 1–3,000 bichloride of mercury solutions were used. In Dr. VanderVeer's abdominal work hot water took the place of all antiseptics, except in the dressing. The spray was used in the room for three days before opening the abdomen. No poisonous effects were observed during the four months from the use of antiseptics, except in one case in which a slight iodoform erythema appeared upon the abdomen after an abdominal section. — *Med. and Surg. Reporter.*

Hysterectomy for Fibroids in Vienna.—Professor Albert has published, in the *Wiener Med. Wochenschrift*, ii, 1889, a paper on ten successful cases of abdominal section for myoma of the uterus. In all, the extra-peritoneal method of treating the stump was adopted. The elastic ligature was used in order to prevent hemorrhage during the enucleation of the fibroid and the amputation of the uterus, the stump being fixed with pins. In fact, the operation was performed in the manner practiced by Drs. Keith and Bantock in England. In one case an abscess in Douglas' pouch was laid open during the operation. The abscess was drained through the posterior vaginal fornix, the tube being removed on the fourteenth day. In another, Professor Albert found a pancreatic cyst in close proximity to the uterine myoma, which was very large, and removed both. This remarkable case will, the author informed his readers, be published in full. In one (and apparently in only one) of the ten cases a myoma had to be shelled out of the hyoid ligament. The posterior layer of the ligament was sewn to the abdominal incision, and the cavity left between the layers was stuffed with iodoform gauze. Professor Albert rejected the use of sponges for cleaning the peritoneum, and attributed his success in no small degree to this new departure. Our readers are aware that Dr. Keith, a successful operator, published a paper in the *Journal* of June 8, wherein he advocated electricity as a safer and more justifiable proceeding in cases of fibroid than hysterectomy. Opinion is still much divided on this question.—*British Med. Journal.*

The Lancet-Clinic and *Obstetric Gazette* to one address one year for $5.

EXCISION OF THE CLITORIS IN A CHILD FOR NYMPHOMANIA.

By J. A. SUTCLIFFE, M.D.

[*Indiana Med. Journal.*[

Three years ago I was called in consultation with Dr. Wm. Wands to see a child, seven years of age, who had been under his care for several weeks. The patient was a bright, beautiful blonde, of excellent physique, and the only child of respectable parents. She appeared to be in perfect health, with the exception of an intense morbid desire to manipulate the clitoris. Her eyes would glisten with excitement, and severe punishment inflicted by her parents would not restrain her. Even in her sleep she would make lascivious movements with her body. She desired the company of children of the opposite sex, and was very shrewd in her endeavors to secure their association.

The most careful examination of her case failed to elicit any cause for this condition, unless it was due to slight hypertrophy of the clitoris. Sedatives, bathing and blistering had been resorted to without any permanent benefit. The child was a source of constant care and distress to her parents. She could not attend school, and could not be trusted out of their sight for a moment; her mother prayed for her recovery or her death, and begged that something be done, regardless of any risk, to save her child from a life of disgrace.

After observing the child for a short time, it seemed evident that nothing short of removing the clitoris would be of any service. The parents cheerfully consented, and with the assistance of Drs. W. Wands and A. F. Wright, the operatson was performed. The mucous membrane was divided in an oval direction, and the clitoris transfixed with a piece of silk to prevent retraction of the stump. It was then removed back to the crura, and the vessels ligated. The mucous membrane rolled forward, making a hood-shaped covering for its extremity. The child never knew that any operation had been performed. The wound healed kindly, and from the day of the operation she seemed to forget that she ever had a clitoris. From that time to the present she has been as well behaved a child as can be found anywhere. She now goes to school and learns rapidly.

If a report has been made of such an operation in so young a person, I do not remember to have seen an account of it. The various text-books denounce the operation in the most emphatic manner. Erichsen expresses his views as follows:

"Removal of the clitoris, even though not enlarged, was some years ago recommended and extensively practiced as a means of curing some forms of epilepsy and of erotomania. This is an operation as unscientific as it would be to remove the glans penis for the cure of similar affections in the male, and one that the experience of the profession has proved to be as useless in its results as it is unscientific in its principle."

Gross and other high authorities treat the subject in the same manner. With the greatest deference for these high authorities, I cannot think that amputation of the clitoris is analogous in its results to amputation of the penis. The penis has associated with it the urethra, and is essential to the act of coition and to procreation. The clitoris is simply a rudimentary penis without the urethra, and aside from the sensibility of its papilla has no important function to perform. The rugæ of the vagina are richly endowed with sensitive papillæ, and it is questionable to what serious extent sensibility is destroyed, especially in a child where possibly the remaining papilla may take on increased functional activity. In the absence of any assignable cause in a child, save slight hypertrophy, I am unable to see why a clitoris should not be removed, or its papilla destroyed with the cautery, when it becomes a constant annoyance and nuisance to its possessor and her relatives. At any rate the prompt and permanent relief given in the above case was such as to justify the operation. It proves that there are exceptions to the general rule laid down by the authors on this subject.

IS THERE A UTERINE NERVE-CENTRE?—Dr. James Olives (*London Lancet*) thinks there is a uterine nerve-centre, and he localizes it in the medulla oblongata. By way of proof he contents himself with bringing forward "deductive evidence." The symptoms associated with pregnancy, which afford evidence of the existence of a generative centre and of its situation in the medulla oblongata, are (according to Dr. Oliver) sickness and cough. All the visceral functions are now performed automatically, and appear to be regulated by nerve-centres lodged in the medulla oblongata. It may therefore be surmised that the uterine functions are governed by an automatic centre. When the uterus becomes the nidus for a developing germinal mass, the waves of motion resulting from segmentation of the ovum are radiated through the agency of the uterus and its afferent nerve-fibres to the uterine or reproductive centre. The disturbances thus produced in that centre are greatly in excess of those usually generated, and the extra amount of motion must discharge itself in some other direction till the uterine centre has become accustomed to the augmentation. The direction which the overflow shall take is determined according to existing nerve communications; and, considering the intimate relationship between the process of assimilation and that of generation, it is not astonishing that the excess of molecular motion transmitted to the uterine centre should be radiated to that governing the nutritive processes generally. Sickness and cough in the pregnant woman may be referred to molecular radiations from the uterine to the pneumogastric centre. In the course of a few months, however, through the agency of labor the pneumogastric centre becomes tolerant. Sickness occurs in the morning, possibly because the change from the recumbent to the erect position may after sleep render the whole nervous system more liable to explosive disturbances. —*London Med. Recorder.*

THE PREVENTION OF MAMMARY ABSCESS.—Miall says that when a mammary abscess is on the point of forming, he has frequently seen all the symptoms disappear in a few hours under the influence of fomentations with hot water and carbonate of ammonia. He uses an ounce of the carbonate in apint of water, and, when solution is accomplished, the temperature of the fluid will be hardly too high for fomentation liquid. He appled them from half an hour to be commenced with cloths dipped in the to two hours, at the same time protecting the nipples. He has often had immediate relief, and seldom requires more than three applications.—*Medical News.*

CERTAIN CAUSES OF ILL-HEALTH AMONG WOMEN.

[*N. Y. Medical Journal.*]

Corsets, high-heeled shoes, late hours, irrational eating, a deficiency in mental discipline, the absence of sufficient individuality, the want of some object of vital interest in life, together with all the carking cares of our cruel American housekeeping—what the Indian called "too much house"—have each, in turn, served as texts for preachments many and fierce concerning the alleged physical degeneracy of women. While it is painfully true that the present system of domestic life is in many particulars defective, it is impossible to specialize and indicate any given point as the weakest in a chain that is pretty generally open to criticism. The physical degeneracy of American woman —if it exists—is due to causes quite outside the pale of heels, corsets, or even mince pie.

The dissipations of the grandmothers in the matter of household prowess and the general hardships of life in a new country are responsible, to a certain extent, for the bodily frailties of our girls. Superhuman and inhuman tasks are the sour grapes that our feminine ancestors did eat, and they have set on edge the teeth of modern young women. Though home life to-day too often is a tyrannous, heart-breaking affair, in comparison with that of Puritan womanhood in colonial times it appears a sea of heavenly rest. The only superiority of that age over our own is to be found in the firm conviction in the minds of Puritan matron and maid that life was really worth living. Now there is doubt upon that point, not loud but deep, among an overstrained and always tired latter-day femininity. The condition known as being "half dead" engenders narrow views.

But to return to our muttons—those hitherto unrecognized causes of feminine insufficiency in the matter of health. A prolific source of overstrain, with its consequent weakness, and, possibly, disease, is the size and weight of all household appliances. They are invariably too big for women to use with ease and comfort. Pots, pans, brushes, brooms, coal-scuttles, etc., are all too large and too heavy for the ordinary woman. Every household article is of the pattern best suited to the strength and inclination of the average man. The flat-iron, the ironing-table, and the clothes-basket were made for man; also the wash-boiler and the stationary tub. There is seldom any hint in point of size and weight that scrubbing-brushes and mops are feminine weapons. In the house and out of it, this is a man's world. His dominion includes not only the beasts of the field, but also the host of inanimate objects that pertain to civilization. Desks and stools in offices, seats in cars, theatres, ferry-boats, churches, everywhere, were designed exclusively for men. Women can not even fill the chairs at home, and, at best, only rattle around in them with more or less discomfort. Occasionally a chair is encountered that fits — not too high, too deep, or too broad. Then the spirit of peace dwells for a time in that reposeful structure.

Here is certainly a state of things. Who is to blame for all this? The manufacturers? Ourselves? Our neighbors? Our friends? Our enemies? Who is responsible, and with whom does the fault lie? Painful as it is to speak the truth, let every man nerve himself for the ordeal. Women themselves are to blame. Persistent hints from household workers would have revolutionized their tools long ago. Women's burdens are for the most part self-imposed. They exist because of tradition, want of thought, and a deficiency of inventive faculty. The feminine mind is apt to find expression in tenderness, encouragement, and that heavenly patience which makes it possible to do the petty tasks of daily drudgery unflinchingly and persistently. The world can ill afford to lose even the minutest fraction of these divine gifts. The joy of life is by no means an exhaustless store. There is every reason to protect women from unnecessary wear and tear. The tyranny of things presses so heavily upon the better sex that looking on the world with level eyelids is too often an utter impossibility. The machinery of home could be made simpler and better suited to the requirements of the situation; and the gain would be an all-round affair, preserving beauty, maintaining health, and bringing about an increase of sweetness and light. Self-interest is a good enough incentive for instituting domestic reforms; and generosity is not a bad motive, either, after the fashion of Pepys, who gravely records, in the immortal "Diary," that he presented a new gown to his wife on Christmas day, in order to give the poor wretch pleasure! There is a sure reward for the hero who brings about a harmony of size, weight, and fitness between household appliances and the modern woman. The gratitude of the poor wretch is certain to equal the measure of her intelligence.

PLACENTAL DEVELOPMENT. — There are few subjects more intensely and essentially scientific than the study of the development of the placenta. As, however, all observers are agreed that the inner wall of the uterus takes a more or less prominent share in the process, the subject is of practical interest to the practitioner and specialist. The placenta is, to those who cannot study pathology or histology, a structure to be carefully removed and destroyed. The condition of the uterine wall after labor, and its involution, on the other hand, concerns all who have the charge of parturient women. Besides, we are not certain as to the precise character and limits of the endometrium; and this uncertainty renders the pathology of endometritis obscure. Dr. Marcy, of Boston, read an instructive mongraph on Placental Development before the Ninth International Congress. In summarizing current researches, he showed that during pregnancy the uterine mucous membrane, which consists of a simple layer of epithelium closely attached to the subjacent mucous membrane, disappears. It is replaced by a layer of decidual cells, proliferated from the vascular network of the uterine wall. The utricular glands are not destroyed, but increased in size. The constant secretion from the glands forms openings through the decidua vera, which form sieve-like perforations easily traced by the naked eye. By the proliferation of the scrotinal cells at the placental site, these glands are, by the pressure from their own obstructed secretion, dilated and altered. This forms the stratum called by Kölliker the non-cadacous portion of the placenta. Traces of these glands may be observed, even to the termination of pregnancy, but none whatever are found in the cadacous stratum of the placenta, as defined by Kölliker, where it would be expected that they would be found if, as claimed by him, the placenta be a transformation of the uterine mucosa. The stratum where the placenta is formed is developed from a mass of cellular or decidual elements, traversed by a vascular network, with endothelial walls only during the first months of pregnancy. Among these elements the fetal villi are buried. During the first three months of pregnancy the fetal villi can be separated from the maternal portion without a laceration of the latter, in the same way as in the non-decidual mammalia. Dr. Charles Sedgwick Minot's valuable paper on the uterus, in the Boston *Journal of Physiology*, also throws light on the relations of the placenta to the endometrium or its representative in pregnancy. In order to instruct and enlighten the profession, histologists should faithfully study the human uterus rather than the same organ in kittens and guinea-pigs.—*British Med. Journal.*

NERVOUS COUGH.—At the last Meeting of Physicians in Cologne (*Wiener klin. Wochenschr.*, July 25, 1889), Dr. Paul Koch delivered an address on the subject of nervous cough; at the close of which he stated the following conclusions which his researches had caused him to arrive at:

1. The existence of a purely nervous cough cannot be denied, although the term is often misapplied.
2. The diagnosis can only be determined after the perfect soundness of the organs of the chest and abdomen has been confirmed.
3. The pathognomic symptom is a cough of unvarying sameness in the individual affected.
4. The multiplicity of curative measures for this affection is a proof of their inefficiency. The disease usually cures itself. A sea voyage or change of air and scene acts most beneficially.—*Med. News.*

CAMPHORATED NAPHTHOL IN TUBERCULOUS ULCERATIONS.—Camphorated naphthol, in a mixture of one part naphthol and two parts of camphor, forms an oily liquid, and may be easily applied to ulcerations of the skin and mucous membranes. Dr. Fernet, in *L'Aceille Médicale* of August 19, claims to have found it a most valuable application for tuberculous ulcerations, especially those of the mouth and throat. Fernet by no means asserts that in camphorated naphthol to have found a cure for tuberculous ulcerations, but holds that by its use the local symptoms will be greatly ameliorated.—*Med. News.*

PSYCHOLOGY OF FECUNDATION.

[*Med. and Surg. Reporter.*]

In his book on the "Psychic Life of Micro-Organisms," Binet calls attention to the fact that the copulation of the spermatozoid and ovule is not without analogy to the copulation of the two animals from which they originated. The spermatozoid and the ovule, to some extent, repeat on a small scale what the two individuals perform in their larger sphere. Thus, it is the spermatozoid that, in its capacity of male element, goes in quest of the female. It possesses, in view of the journeys it has to make, organs of locomotion that are lacking in the female and are useless to it. The spermatozoid of man and of a great number of mammifers is equipped with a long tail, the end of which describes a circular conical movement, which together with its rotation about its axis, determines the forward motion of the spermatozoid.

The spermatic element, in directing itself toward the ovule to be fecundated, is animated by the same sexual instinct that directs the parent organism towards its female.

In the higher animals, the movements of the spermatozoid that is endeavoring to reach the female exhibit a peculiar character, which it is important to emphasize: these movements do not appear to be directly provoked by an exterior object, as those of micro-organisms are; the spermatozoid endeavors to reach an ovule which is frequently situated a great distance away; this is the case particularly with animals that fecundate internally, with birds and mammifers. A fact that is important to mention in a general way is the length of road the spermatozoid has to traverse before coming up with the ovule.

The spermatozoid, in its journey to the ovule, has to traverse a road which is, in certain instances, extremely long. Thus, in the hen the oviduct measures 60 centimeters, and in large mammifers the passages have a length of from 25 to 30 centimeters. We might ask ourselves how such frail and minute creatures came by a power of locomotion great enough to enable them to traverse so long a path. But observation discloses the fact that they are able to overcome obstacles quite out of proportion to their size. Henle has seen spermatozoids carry along with them masses of crystals ten times larger than themselves, without appreciably lessening their speed. F. A. Pouchet has seen them carry bunches of from eight to ten blood-globules. M. Balbiani has attested the same fact. These globules, which have fastened themselves about the head of the spermatozoid, have each of them a volume double that of the head. Now, according to Welcker, the weight of a globule of human blood is 0.00008 of a milligramme; allowing that the spermatozoid has the same weight, we may then say that it is able to carry burdens four or five times heavier than itself.

Alcohol in Puerperal Fever.—At the meeting of the German Society of Obstetrics and Gynecology which was held on the 28th of June, Dr. A. Martin read a paper (*Deutsche med. Wochenschrift*, July 25) on the efficacy of alcohol in puerperal fever. Eighteen cases were cited, five of which died. Three cases were of pyæmia and fifteen of septicæmia. Besides the alcohol treatment, a strict local antiseptic treatment was also resorted to. The alcohol was given in large quantities in the shape of various wines and spirits together with a most nutritious diet. One of the cases which recovered was given, inside of six weeks, 17 bottles of cognac, 13 bottles of burgundy, 37 half-bottles of champagne, 4½ bottles of other heavy wines, and 6 bottles of porter. When slight diarrhoea was observed the wine was changed.—*Med. News.*

Prohylactic Hair-wash.—The following hair-wash, given in the *Therapeutische Monatsheft* for July, 1889, is said to keep the scalp cool and the hair dry and free from oil, also to prevent dandruff, besides being a most agreeable toilet preparation:

℞.—Spirit of ether, . f℥ss.
Tr. of benzoin, f℥ss to f℥ij.
Vaniline, . . ♏j.
Heliotropine, . ♏iij.
Geranium oil, . gtt. j.—M.

Sig. For hair-wash. Keep well corked and do not expose to flame, as the mixture is highly inflammable.—*Med. News.*

PRINTING.—The Lancet-Clinic office receives orders for all kinds.

Intestinal Diseases of Children.

Clinical experience, the only conclusive test, has proved the great efficacy in Cholera Infantum, of MELLIN'S FOOD dissolved in water only and given cold, in small amount frequently repeated. "In MELLIN'S FOOD," says Dr. Eustace Smith, "the whole of the starch is converted into dextrine and grape sugar (properly maltose) so that the greater part of the work of digestion is performed before the food reaches the child's stomach." He also says, "I have never seen any signs of fermentation which I could attribute to the influence of maltose." Since it is non-fermentable and so quickly assimilated, MELLIN'S FOOD is the best food for infants suffering from this complaint until convalescence has been sufficiently established to allow the regular diet to be resumed.

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CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, September 21, 1889. WHOLE VOLUME LXII.

Original Articles.

THE ACCOUCHEUR AND HIS FORCEPS.

A Paper read before the Mississippi Valley Medical Association, at Evansville, Ind., September 10, 1889,

By A. S. Barnes, M.D.,
Professor of Obstetrics and Diseases of Women and Infants, St. Louis College of Physicians and Surgeons.

[Last week we took occasion to briefly refer to this interesting paper, with its narration of an immense obstetric experience in private practice by the author. We were glad to secure the paper for the benefit of our readers.—Ed.]

My object in selecting the chief subject of my paper was not that I expected to be able to give any remarkably new points, as the ground has been gone over and over; I only hoped I might influence some benighted brother who objects to the frequent use of the obstetric forceps, from one cause or another, to thoroughly investigate the subject, and convince himself of his erroneous ideas.

When without experience, we are too frequently influenced in our opinions by articles in journals, or remarks made by those in whose opinions we have confidence; or it may be our medical education has been more theoretical than practical—that we have not been taught to differentiate between ignorant meddlesomeness, criminal neglect, and scientific assistance. May it not be possible that we dislike that branch of medicine, or are not dexterous with instruments, or our slight personal experience has not been flattering either to forceps, or user? It may be our selection of forceps has not been good, or judgment of forcep cases; the surroundings of the patient may have been bad, or improper remedies used, bad nursing after use, and many other things that go to influence the mind. *May these* not account for our opinions?

If there is one subject or branch of medicine that should be of more interest than another, to the profession and to the public, it is obstetrics. The fact that the lives of both mother and child are greatly dependent upon the views held by the modern obstetrician, should be sufficient to make that interest perfectly legitimate, and worthy of the greatest minds in the profession. This interest should necessarily grow in proportion to the possibilities of the accoucheur to render proper assistance to the lying-in woman, when needed, whereby her suffering, both mental and physical, may be assuaged, and even death of the mother or child prevented. That such assistance is needed at times, is beyond doubt. This being true, how necessary it is that the accoucheur should take rank as far above the every-day midwife, in knowledge and ability, as the master mechanic outranks his apprentice!

The responsibility that rests upon the accoucheur is certainly unappreciated, both by members of the profession and the public. I am positive the accoucheur himself frequently does not fully comprehend his high calling and responsibility as he should. This is probably due to the very erroneous idea that exists, to a considerable extent, that because pregnancy and parturition are considered physiological, there is little, if any, necessity for the rendering of assistance on the part of the medical attendant.

It is certainly sad, and no less strange, that medical men of known ability can hold such an opinion in the face of every-day occurrences in obstetrical practice, where dystocia, and even death of both mother and child, are forcing recognition at the hands of the scientific accoucheur. I am sure, if I had the time, I could convince any reasonable man that it is as unreasonable to suppose that Nature deals with pregnancy and parturition differently from other subjects, as to believe that she will not permit any of her laws to be broken or interfered with.

If there was no such thing as free agency, and our environments were always the same, with Nature controlling everything perfectly, then we might trust her to do all things well. We would be free of all responsibility, and would only *need instinct* to govern us. And right here is where the difference lies between responsible and irresponsible beings.

Nature is complex in character, doing the very best under the circumstances that exist. (Circumstances frequently interfere with her work, as we all know.) Nature tries to be regular in the performance of her work, but frequently needs the assistance of man's intellect to carry it out. It is not intended she should act independently of man at all times; she works for the benefit of man, and is to be used by him for his benefit, but not to interfere with art and science; but going hand in hand, furnishes us with materials that can and should be utilized. But she is thwarted or misunderstood when *some men, and most of women,* attempt to practice widwifery, and there are penalties that accompany mistakes. *Cause and effects.* Seed planted in poor soil will not bring forth an hundred fold. The surgeon does not depend upon nature to correct deformities, and neither should we expect her to correct morbid or abnormal conditions occurring with parturition. But we should be ever ready and competent to utilize the means and remedies that can be applied to the advantage of our patient scientifically. We should be able to substitute science and judgment for nature and instinct, and deliver the woman when necessary.

Educate nature and instinct, and we have *science, art* and *ability* (not meddlesomeness), which will enable us not alone to assist nature, but even to do *her* work successfully.

The accoucheur who has to depend upon nature will soon tire, and wish he had selected some other calling—and so will his patient. In fact, you can see the bad results of that mischievous belief (that nature will and should do the work if let alone) in the practice of many physicians, when attending cases of confinement, to such an extent that they feel their inability when called upon to render assistance, and are necessitated to send for some thoroughly posted brother to deliver the patient, and *he* unintentionally secures thereafter not alone the *golden egg*, but the *goose. The public can recognize talent at times.*

The accoucheur's responsibilities are *great*, and so, also, his *resources.* Therefore, having the lives of mothers and their offspring in his hands, he should certainly be expected to have a thorough knowledge, with sufficient ability to attend the cases that fall to his lot. Where we lack knowledge we are greatly handicapped, and will necessarily have circumscribed ideas, as it makes men *superstitious, skeptical* and *narrow-minded, jumping at conclusions without investigation*, and *necessarily dependent* upon *nature to do our work;* as we feel our inability to render one iota of assistance that will be beneficial, we will sit by the bedside of our patient whilst she drifts towards the breakers, and we cry, *Let nature do her work*, as this is a *physiological act* and *must not be interfered with.*

These are the men who are ever ready to condemn those who have the *knowledge* and *ability* and *dare to use them.* The accoucheur cannot afford to be embarrassed by prejudices, whether hereditary or acquired through education or association, as they are the great enemies to progress, preventing investigation, warping our opinion to suit them, as well as preventing our securing the benefit to be derived from the experience and research of others.

The practice of obstetrics is progressive, and necessitates continuous application and study to keep up with the times, or you drift back. He who does not apply himself will soon become antiquated, and in need of "Brown-Séquard's Elixir."

The accoucheur holds the most sacred and responsible position in society that is known. His influence to do good or harm is beyond measure. He is admitted within the most sacred precincts of the household, and is the custodian of the most valuable family secrets. It is he who frequently has to do with the prospective or real existence of one or more of the family; and often decides whether one or both shall have an existence. This being true, how necessary it is that he should have prerequisites to fit him for this high position. He should certainly be a moral man, with love for his profession and ambition to do good; kind, agreeable and sympathetic; firmness is a necessity against imposition and meddling, and insures the carrying out of orders in the after-treatment, which will help greatly towards good results. Good judgment and quick perceptive powers will bear good fruits. He should be careful in making a *diagnosis* or *prognosis*, cautious in making examinations for the purpose of discovering the presentation or position of the fetus and condition of the maternal parts. Honesty should be one of his chief cornerstones; then he could not be influenced in either judgment, opinion or action by a pecuniary interest. I sometimes wonder if it is possible that revenue plays any part in the shaping of our acts or opinions.

There are temptations held out even to physicians in these days. When it has been proven that "*cleanliness* is next to *godliness*," it will behoove him to be cleanly in person and dress, demanding it also from all attendants in the treatment of patients, as well as from the patient herself. There are many other requisites which go to make up the scientific, practical accoucheur. As my time is limited, I will only mention one other, and that is a thoroughly practical medical and obstetrical education, which is a *sine qua non.*

On entering upon the subject of obstetric forceps, it is not my intention to go into their history, as that is well known to most of those present; besides, it is to be found in most of the text-books, and is of little interest, comparatively speaking, outside of the fact that their origin sprang from a need that had been long felt.

It is not my intention to entertain or detain you with tables of statistics, as no one will probably deny what I could prove by them. It is my purpose to make a few statements which will need no statistics to prove.

The first is, that forceps have been in use for these many years, and have been a bone for contention ever since their first appearance, and will likely continue so until a higher state of practical medical education places them just where they belong, as a means whereby a woman can, and should, be assisted or delivered, without dissent.

The obstetric forceps are passive, but philosophical in action but not automatic; therefore, not responsible for the good or harm done by them, but dependent upon their backing, and, like the surgeon's knife, they have a work to perform, and are not to be used as a substitute for anything, as they have no alternates. The accoucheur should use them as hands for the purpose of adjusting and assisting nature in delivering the woman, and, if necessary, to extract the child. They differ from all other extraneous means used for the purpose of delivery, in that they are perfectly under the control of the accoucheur, and place the child there also.

There can be no possible doubt as to their efficiency and necessity, as they have stood the test of years, and all the adverse criticism that could *well* have been heaped upon them, and *still* have grown in favor, as their work has been better performed and understood. And when they are properly constructed and correctly used, they have never failed to do good service, and he who does not use them in his practice will risk the lives of both mother and child, besides entailing unnecessary suffering on the mother.

After over thirty-five years of active practice and the delivery of over 4,500 women in private practice, and a thorough examination of all the means that are used, I have come to the following conclusions:

First, that the great *desideratum* is the *prophylactic* and *not remedial* treatment, and that the use of the obstetrical forceps is frequently a necessity for that purpose, and that they should be used much more frequently than they are for the benefit of both mother and child; that we have no right to condemn them because of their abuse by uneducated heads and hands, but should demand a more thorough knowledge of them by the profession. Thereby bringing the physician to the proper knowledge, that he may use them scientifically. And just here I take pleasure in recommending a small book that should be owned and studied by every physician who is *not* an expert in the use and application of the forceps. I refer to "How to Use the Forceps," by Prof. Henry G. Landis, of Columbus, O. (whom you probably all know).

The same excuse for not using the forceps can be applied to the surgeon's knife, and is neither legitimate nor philosophical in this age, when the chances for obtaining the knowledge are so good. Besides, it is this kind of argument that gives men excuses for not obtaining the necessary education upon the subject; and the time will come when it will be demanded by the courts of justice. Tedious or protracted labors are acknowledged to be bad for both mother and child.

Prof. A. F. A. King, after enumerating the particular dangers accompanying and following tedious labors, says every case of *actual or impending tedious* labor should excite apprehension for the woman's safety, increasing in degree according to the extent to which the symptoms have progressed and the estimated difficulty of prompt delivery. With timely assistance, safety may often be assured, while delay may render recovery impossible. There is a great difference in obstetric forceps, and the danger of them is dependent upon their form of construction, as *well* as a *want* of knowledge on the part of the user. They should be strong. *Not slight, sharp nor springy*, without too much pelvis curve, edges dull, wide fenestra. An accoucheur should be supplied with several pairs, at least two—a long and a short pair. A. M. Leslie, of St. Louis, has had several pairs made for me, which I take pleasure in recommending as just the kind to use.

A *forcep case is a forcep case*, not to be treated in any other way, for want of knowledge, on the part of the accoucheur. The onus that rests on the forceps does not belong to them, but belongs to what *I call meddlesome* or *misunderstood* midwifery, that *burdens* and *complicates* a majority of cases of dystocia under the *guise* of *scientific* and *humane* treatment.

I mean the *scientific treatment* of using *antiseptics before* and *after confinement*, in the *washing out* of the *vagina* and *uterus*, which is neither *philosophical*, *beneficial* nor *necessary*, but *both meddlesome* and *harmful*, as nature has made provision against sepsis in the shape of the secretions, which protect the parts perfectly for at *least* three days after delivery, when every part of the reproductive tract should be in a physiological condition, and *will* be if the *case has been properly treated*. Ergot has no place in child-bed.

I agree with Prof. Landis, who says it is uncertain in action, and when it does act, it causes tonic contraction of the uterus and an unremitting effort to expel the child. And if this takes place before the os is dilated, laceration of the cervix may occur; if the head is large, rupture of the womb may occur. In any event, the placental circulation will be continuously compressed, and the child in danger of asphyxia. Ergot should never be given before the birth of the child, and from its uncertainty, should never be depended upon in the third stage. It is not controllable, and there are *better* remedies for the same purpose.

Anæsthetics are seldom admissible, and *never* so as a placebo or substitute for other remedies. Chloral and opium may be administered if necessary, in small doses frequently repeated, for the purpose of allaying contraction caused by irritation, and for relaxing rigid muscles. Ergot and anæsthetics complicate labor, even when normal, as it is well known, and they are the cause in many cases of puerperal troubles where the forceps receive the blame.

I *never* use ergot in child-bed, and but very rarely administer chloroform, and never wash the uterus out, but always see that it is perfectly clear of all portions of placenta, membranes and clots; insist strictly on *diet* and *cleanliness*, use the forceps frequently, but only in forcep cases. Do not permit tedious labors when possible to prevent them, which can be done in a very great majority of cases.

I will close by describing what I consider to be a forcep case, taking it for granted the accoucheur is thoroughly up in his branch and is supplied with the proper kind of forceps. They should be used whenever the case has been a long enough time in true labor to satisfy the medical attendant that it is not sufficiently progressive, of which he must be the judge, the maternal parts being in a proper condition and the fetus of normal or corresponding size to the maternal pelvis, and there are symptoms of any kind to indicate a want on the part of nature to do her work; when there is a necessity for slight compression for the purpose of causing the head to mould, or for the purpose of slightly changing the position the child occupies to itself; and when it is considered best for the woman to be delivered at once. All of which the accoucheur in attendance must be the judge. Always bear in mind your responsibility and what should be expected of you as a scientific physician by the profession and public.

With this treatment I have been so successful that I neither lose lying-in women by death nor do they have puerperal fever or sepsis.

So I take pleasure in recommending it to those of you who have not met with such success.

Ergot in Childbed.—Dr. Pinzoni, of Bologna (*Bollettino delle Scienze med. Bologna*, series vi, vol. xx.), has made some interesting clinical experiments in order to determine, with something like precision, the value of ergot in childbed. He administered ergot systematically to ninety-one lying-in patients, generally in the form of about 2 grammes of the powder daily. Seventy-nine similar cases were treated without ergot. After comparing the series, he came to the following conclusions:—Ergot has little or no influence on the temperature, at the most a slight rise is occasionally observed. It hastens the pulse a little, yet has no marked influence on the physiological slackening of the pulse observed during the first days after delivery. The physiological increase in the secretion of urine during the first days is favored by ergot. The involution of the uterus, according to Dr. Pinzoni's researches, is either totally uninfluenced by ergot, or slightly retarded. The escape of the lochia remains normal when that drug is given; but clots, as universal experience has proved, are more readily expelled. The lochia seldom smell fœtid when the ergot is taken. Ergot delays the after-pains in primiparæ, and lessens them when they have already commenced. The secretion of milk is retarded and lessened by ergot, and sometimes completely suppressed. Ergot seems, in the belief of Dr. Pinzoni, to be a prophylactic against puerperal fever, an indirect antiseptic agent. When infection has already taken place, ergot appears, on the other hand, to hasten the entrance of the virus into the circulation. —*British Med. Journal.*

Treatment of Constipation.—In the treatment of constipation, the diet should be easily digested, but some articles should be given which mechanically aid defecation, as oatmeal, dried apples and peaches, and brown bread. Belladonna and nux vomica are the two pre-eminent remedies. Where remedies fail faradization of the abdomen is good treatment.—Prof. Da Costa.

PLASTO-COSMETICS IN SURGERY OF THE FACE.

A Paper read before the Mississippi Valley Medical Association at Evansville, Ind., Sept. 11, 1889,

By B. Merrill Ricketts, M.D.,

Clinical Lecturer on Plastic Surgery, Miami Medical College; Professor of Dermatology and Syphilography, Cincinnati Polyclinic; and Visiting Dermatologist to the German Protestant Hospital.

Mr. President and Gentlemen:—When asked by your Secretary to present something that would be of interest to the members of this, the most flourishing and progressive medical society west of the Alleghenies, I hesitated, feeling that the most common medical and surgical subjects have been comparatively exhausted, as the frequent meetings of the various medical and surgical societies with their allies would indicate. But when we consider the subject of each and lay down the bars leading into their uncircumscribed areas,—areas which are themselves subdivided—we find that our exploits and discoveries are confined principally to the main area; that the bars lowered by Galen, Harvey, and Hunter are but a short distance in the background; that while during the past century many new and important discoveries have been made, thereby overthrowing doctrines which lead to practices that would now be condemned and looked upon as acts of malpractice, we cannot feel that the end has *half been reached*.

While the subject I present to you—namely, "Plasto-Cosmetic Surgery"—is somewhat an antiquated one, I feel assured that the demands for resorting to it are by far more numerous and the results better.

The demands for an unblemished appearance are in proportion to the degree of civilization. In the early days of surgery, especially the time of Tagliocozzi, the operation for hare-lip, cleft palate, the replacing of a lip, eyelid, or nose, or any part thereof, was seldom practiced, and when they were good results were few. Although the demands for the correction of deformity were fully understood by many, it was not until the time that this public benefactor, Tagliocozzi, reported his observation on grafting the cock's spur into his comb and the end of the rat's tail into its back, that anything authentic was published or brought before the profession.

Not until the eighteenth century, a time when the process of waste and repair was more fully understood, was it that an era and system were inaugurated by which lost parts might be restored. In fact, from the time that the circulation of the blood was understood by Harvey, a few keen, observing men in the profession (men possessing what might be considered a morbid desire to correct deformity) began to experiment upon the lower animals, that they might be able to serve their fellow men. How great the courage of an enthusiastic man like he (Tagliocozzi) must have been when he made his first pedunculated graft. Surely it must have approached that of *Kentucky's bravest man.*

Then facial deformity was principally the result of disease; however, accompanied more or less with that of heredity. To-day the per cent. of the former (disease) is but a small per cent., with about the usual per cent. of congenital deformity. Now from seventy to eighty per cent. are due to traumacy as the result of the various kinds of machinery and occupations which characterize the age. They adopted plans which were the result of their own mental energy; we merely follow their teachings, with the addition of a small modicum of microscopy, electrolysis, antisepsis, and more numerous opportunities. Their experience and the means at our command for making microscopical examinations (which so definitely determine the character of growth and disease), together with electrolysis and antiseptic measures, enable us to arrive at safer and earlier conclusions and adopt more radical measures with better results. The experienced microscopist or pathologist of to-day is seldom in doubt, and, when denied the privilege of making an operation, need not hesitate in making a diagnosis if allowed to excise but a small portion of the growth, a proceeding which should always be adopted when there is any controversy as to its character or the final result of the operation. We are not justified in basing our conclusions upon the clinical appearance alone, *especially* when the operation to follow may not result in all that could reasonably be supposed. However, there appear times when it would seem necessary to be governed by the surrounding circumstances, or when the services of a competent pathologist can not be had. Delay should not then be indulged in, but the patient operated upon at once. When the lesion is slight, involving cutaneous structures other than that of the eyelid, lip, nose, or ear, removal may be accomplished by either the curette, caustic paste, actual thermo, or galvano-cautery, or it may be excised with the knife, which to my mind is the most rational means in the majority of cases occurring, especially upon the former location (eyelid, lip, nose, and ear). When the deformity is the result of traumacy, heredity, or any other like cause, the knife is the *quickest, surest,* and in fact the only means at our command by which the irregularities resulting therefrom can be corrected.

Here I find it not only convenient but necessary to make three classifications, each of which requires a different kind of treatment:

1st. Removal of malignant growths.

2d. Correction of deformity due to loss of parts from either congenital or traumatic causes, or from previous operation or disease of any kind, including pug nose and ptosis.

3d. The removal of nævi, warts, moles, hairs, pigmentary deposits, cicatrices, alveola, fistulæ, enlarged glands, or anything abnormal other than malignant growths that may appear upon the face or neck.

1st. Removal of malignant growths. In this class I include all growths which have a tendency to recur. They are of the most importance, and should in consequence thereof be given precedence. The growth should be removed as soon as possible, and when found in its incipiency should be done with the knife, encompassing as much healthy tissue as can be spared.

If upon the eyelid, lip, or nose, a complete and thorough excision should follow, and the parts immediately restored by an individual or pedunculated graft from either the face or arm. When the malignancy has existed for some time, secondarily involving the eyelid, wing of the nose, lip, or ear, together with destruction of osseous tissue, some form of paste may be used; and when sloughing has been followed by the necessary granulation, a pedunculated flap may best be taken from the arm. While the formation of cicatricial tissue should be avoided so far as possible, it is this upon which we must depend for recovery when there has been extensive degeneration of tissue, with or without caries—a condition which is so often found in the long-standing cases of epithelioma. There is no course to be adopted that promises more for a good base upon which to graft in these extension cases than a thorough curetting, followed by the application of some form of arsenical paste.

However, the old theory, that malignant growths, after being excised or removed by cautery, of any kind, and allowed to heal by granulation, is less likely to return, can no longer be entertained by the most experienced observers.

The removal of malignant tissue, until within the last half-century, was principally done with caustics or the actual cautery and the healing left to care for itself, which in the majority of cases resulted in dreadful cicatricial contraction, a deformity which should always be avoided. Here I might say that the use of caustics in the treatment of malignant growths, especially of epithelerica of the face, has been sadly neglected and allowed to sink into almost oblivion. My experience and what I have been taught by the literolum upon the subject by both professional and non-professional workers has led me to thoroughly investigate the treatment by these means, so that what I have to say will be found in a paper read by me before the Ohio State Medical Society in June, 1886, and published in the LANCET-CLINIC of June 12, same year.

When a malignant growth occupies a prominent place upon the cheek or neck, places where the skin is plentiful, the coapting of their edges following the incision is all that will be necessary to complete the operation, which will result in practically no deformity whatever. If the integument be wrinkled from old age or any other cause and the operation be made, resulting in a smooth surface so that there is a contrast in the two sides, a similar section may be excised from the opposite side with cosmetic effect. I have recently had a case fully demonstrating the necessity and efficacy of such an operation.

2d. The correction of deformity due to the loss of parts from either congenital or traumatic causes, or from previous operations or disease of any kind, including pug nose and ptosis.

In this class about the same course should be adopted as in the first class after an excision has been made.

If the brow be destroyed, with the loss of tissue, a flap taken from the corresponding temple, the line of incision having been through the hairy integument of the temple, will be found suitable to adhere with but little difficulty. True, they would not be perfect, but by frequent trimming and a little care they will answer the purpose and correct a deformity that is always more or less objectionable.

If the reasons are such as not to justify the taking of tissue from either the face or arm for grafting purposes, the skin of the chicken removed from under its wing or the skin taken from the under surface of the frog may be substituted with equally as good results; or, if there is left to heal by granulation a surface that will be covered with cicatricial tissue, one or more small individual epithelial grafts may be made to attach themselves.

Where the surface is large the same result can be obtained with but one graft, cut one-third larger than the surface which it is intended to cover, shrunken in hot water a few minutes, dried with towel, and applied immediately.

Since the introduction of sponge grafting the epithelial coating is completed very much sooner in indolent granulation, and, when cared for carefully, will greatly benefit the reparation process in the majority of granulating wounds.

Rhinoplasty.—One of the greatest difficulties, to overcome in operations about the nose, is to preserve its prominence. If the septum or cartilage be absent, or if it is found necessary to remove one or both of them, it is almost out of the question to elevate it with muscular or cutaneous tissue. In either of these events they should be replaced by cartilaginous or bony tissue from the patient or from one of the lower animals as soon after its birth as possible. If the septum alone is wanting it may be replaced by the tibia and fibula or the radius and ulna of a guinea pig, kitten, rabbit, or puppy. If these are objectionable and the patient is willing to sacrifice a finger, a better result will follow than with any other proceeding. Should the subject of the operation be so fortunate as to have a friend or find any person who is willing to part with a superfluous finger, which is occasionally due to congenital malformation, no difficulty will be found in utilizing it to make the part more prominent. The finger being divested of the nail and the matrix destroyed, is then prepared for attachment by a longitudinal incision in the palmar surface. It is then attached by sutures and the hand and head perfectly secured by bandages until union has taken place; which when thoroughly accomplished the finger is amputated, leaving enough of the integument to properly cover the lower end of the bone. One case I recall was so cleverly done that the graft had not the appearance of having been a finger.

When the septum and bony parts of the nose are remaining (from injury or otherwise), in either case a different procedure is to be followed. In these cases a section with a pedicle may be taken from the cheeks, forehead, or arm. When taken from the cheeks, which I think the most practical in the majority of cases, the union takes place in the naso-median line, leaving but a slight cicatrix. If but little of the cartilaginous alæ is left remaining it can be utilized in making the tip of the nose more prominent. To remove the flap from the forehead is the most objectionable operation of the three, as there is always a large cicatrix as a result upon one of the most prominent parts of the face. The principal objection to removing the flap from the arm is in the time required before the tissue can be detached from the arm. As a rule these flaps are attended with very good results indeed. They seldom fail to unite if properly cared for, but the distress the patient experiences from the arm being bound up so long is such as to question the proceeding as being preferable to taking the flap or flaps from the cheek.

In those cases of thickened *alæ*, Linhart's operation, which consists in excising elliptical pieces, should be made.

Pug nose, when to the extreme, can be made to appear without much deformity by the now accepted operation, which consists in removing a small section of the septum, thus lowering the tip of the organ to any desirable degree.

Deviated Septum. — Should the bony structures of the nose deviate from the median line, it can be made straight by simple means. That these operations terminate successfully is no longer a question, the good results depending upon the skill of the operator and the care exercised in the after-treatment.

Eyelid. — Ptosis, that much-neglected deformity, can easily be relieved to a great degree by simply removing a part of the eyelid, as in the operation for entropion, and relief should be given in all cases, it being better at any time to expose a part or all of an eye than to have it completely covered, as is often the case following paralysis of the third nerve, the levator palpebra muscle being involved. Surgical interference is especially demanded if the branch supplying the upper eyelid alone should become paralyzed by some traumatic lesion or an exostosis or tumor, Von Graefe's operation being the most desirable in the majority of cases. It is always desirable to leave one-quarter, or at least one-eighth, of an inch of the palpebral margin.

Lips.—As the operation for hair-lip is the most common, and the good results therefrom so well known, I will not enter into detail with reference to the various procedures. Suffice it to say that more has been accomplished in these operations than any other in plastic surgery. Most of them are accomplished with flaps taken from the face. However, many brilliant achievements are secured with grafts taken from the arm.

Fissures. — Lesions of this character, especially when chronic or showing a tendency to recur at stated intervals, should be excised, thus enabling radical measures to be adopted. Union by first intention is nearly always the result when the edges are perfectly adjusted and held secure with sutures.

Thickened lips may be reduced to their normal condition by removing a section by means of either a longitudinal or transverse incision, as the case may require.

The operations of Koenig, Linhart, Langenbeck, Malgaigne, Graefe, Colles, Szymanowsky, Roser and Buck are perhaps all familiar to you, and their results fully appreciated. Surely it is to these unselfish characters we owe our thanks for the high standing these operations have attained.

The Ear.—Here is an organ which has suffered greater neglect than any of those about the face. It is, I think, due to the difficulty in finding suitable tissue for grafting purposes. A small degree of it may be due to the fact that a partial destruction is not so much realized on the part of the subject. Where the entire auricle is absent it seems at present best to replace it with an artificial one made of paper, rubber, celluloid, or some other one of the compositions used for that purpose. But when the lobule has been destroyed a pedunculated graft from the arm will completely restore it. Should the helix alone be removed it is very difficult to replace it. However, if any part of it be absent, especially when due to having been bitten out by human teeth (which is the most frequent cause), leaving a concave surface, the edges may be brought together after having been made raw, a triangular piece removed, and union secured with but slight deformity. I consider grafting for the restoration of an auricle in its infancy.

Drooping of an ear and the adhesions of an auricle to the scalp are easily obviated and should not be overlooked.

3d. The removal of nævi, warts, moles, hairs, pigmentary deposits, cicatrices, alveola, fistulæ, enlarged glands, or anything abnormal other than that of malignancy that may appear upon the face and neck.

In these it is always entirely for cosmetic effect that their removal is resorted to. However, some of them are not unfrequently the origin of malignant growth, epithelioma being the most common.

Electrolysis.—Now that this has been so perfected and its results so radical and efficacious, and no pain or discomfort experienced, the subjects of such growths are easily induced to submit to their removal. From three to five milliampères will answer to any emergency in the total destruction of hairs, while from ten to twenty will be found necessary to completely destroy nævi, warts and moles.

As to the number of cells required to secure a current of given strength, that depends upon the kind of battery and the length of time in use. The chloride of silver battery is but half the strength—that is, it will require ten of its cells to generate a current of equal strength as that of the ordinary battery under like circumstances. No current should be applied without being registered by a galvanometer, or, what is more accurate, a milliampermeter, which will enable us to determine exactly the amount of electricity applied.

Pigmentations. — These, being either smooth or elevated, must necessarily be managed differently. Where the pigmentation is smooth and limited to a small area, total excision is no doubt the most radical measure and the cicatrix smaller; but when there is more or less elevation, electrolysis is the most satisfactory way of removal. In a few cases, however, where there is no elevation, this course may also be followed with satisfactory results. In this event the strength of the current need not exceed one-half that used in destroying warts or moles. As in the former, the object is not to destroy tissue, but to so act upon the structures of the skin as to discontinue the deposit of pigment cells. When a wart or mole is to be removed, something more is necessary—*the destruction of tissue*—which will require double the amount of electricity.

Cicatrices of any kind that are irregular or elevated, making the outline of the face appear broken, should be removed, as should alveola and fistulæ also, so that the line of union should be linear and correspond to the folds of the skin. In this way many lines of union are completely hidden or remain unnoticed.

Glands, when enlarged, should be excised before suppuration occurs, no gland being allowed to remain until it degenerates into pus. Poultices and the various applications should no longer be tolerated by the profession as means of either relief or cure. They are only means of inconvenience, expense and torture, that should be placed upon a shelf too high to be reached and allowed to become musty from old age and disuse. We have all seen the havoc as the result of neglect in cases of enlarged glands.

As to asepsis, I do not think that that is anything more than absolute cleanliness, secure it as you may. There is no question but that it should always be accomplished. Just what advantages the natural chlorides will have remains to be seen. I mean by natural chlorides the new solutions that are made to represent the cutaneous secretions, such as that known as perspiration, which contains about one-half per cent. of sodium chloride. By the use of such a solution the raw surfaces are to be irrigated constantly, thereby promoting a more certain and rapid reparation process.

SANDER & SONS' Eucalypti Extract (Eucalyptol). Apply to DR. SANDER, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Griefswald.

ANTIPYRETICS, ANALGESICS AND HYPNOTICS.

A Paper read before the Mississippi Valley Medical Association, Fifteenth Annual Meeting, at Evansville, Ind., September 10, 1889.

By I. N. LOVE, M.D.,
St. Louis.

In this short paper I shall not attempt to treat of my subject—or rather trio of subjects—exhaustively or analytically, but only in a general way.

It goes without saying that antipyretics are remedies which reduce the body temperature when it is above the normal point.

We have had for many years a long list of remedies which properly come under this head, all accomplishing the same end more or less actively, but in different ways.

Some act by lessening the tissue changes, such as quinine; some by reducing the circulation, as digitalin, aconite, leeching, cupping or bleeding; others, like alcohol, by dilating the vessels of the skin and producing increased radiation; others, again, by stimulation of the sweat glands and the evaporation following, such as Dover's powder and antipyrine; last of all, those which extract heat from the body, cold baths, cold drinks, wet-pack, etc.

Quinine has for a long time taken high rank as an antipyretic, but the profession has now arrived at the point, I believe, where other means are to be preferred, save in high temperature due to inflammation and septic causes.

I think it should never be given to reduce the temperature in typhoid fever; the demoralizing effect upon the stomach and nervous system is greatly to be feared. In these conditions, the cooling bath, coupled with antipyrine, acetanilid, and the new drug belonging to the same class, exalgine, to which I shall refer more fully later, are, I think, much more desirable. They have the advantage of not only reducing the temperature, but at the same time calming the nerve centres, and the three last of rendering the alimentary canal antiseptic.

En passant, I would like to emphasize the point that, whatever the means used, the reduction should not be made too sudden and in excess. A gradual reduction is safer and more readily maintained.

Of all analgesics, or remedies which relieve pain, opium or its derivatives stand first on the list, but there are many conditions where so powerful a remedy or one so disposed to check the activity of the secretory glands is contra-indicated. Such cases are accommodated admirably by the modern coal-tar products previously referred to, viz., antipyrine and acetanilid.

I am already on record as favoring the latter drug on account of its being more active, safe, reliable, and reasonable in price; and, besides, it is not a potent medicine, as is antipyrine. The preference is based upon nearly two years study and comparison of recorded bedside observation.

Sleep-producing agents, in the fullest acceptation of the term, would naturally include all or many of the drugs which reduce temperature or allay pain.

The bromides, of course, are the most popular and purest hypnotics we possess, but chloral hydrate is one which deservedly ranks high.

Urethan, a new or comparatively recent hypnotic, I have found of considerable value, and it possesses a great advantage over the two previously mentioned in that, being very soluble in water and non-irritant to the tissues, it can readily be given hypodermically.

When given in sufficient quantities—ten to thirty grains—and a reliable product be used, it can be depended upon unless the element of pain enter into the case as a cause of the restlessness, in which case it will fail.

Prof. Coze, of Nancy, has demonstrated urethan to be an absolute antagonist to strychnia. Potter's Hand-Book suggests that this fact would indicate that urethan would be useful in any form of convulsions, and especially in tetanus.

Exalgine, which has recently been added to the class represented by antipyrine and acetanilid, through the labors of Brigonnet, of the Cochin Hospital, has now been before the profession for some months.

A favorable pronouncement regarding this drug by Dujardin-Beaumetz prompted me to secure a good supply and use when indicated. Two months' systematic use of the drug, while not absolutely convincing to me, has so favorably disposed me to it as to justify a continued and more enlarged application of it.

Messrs. McKesson & Robbins furnish

a 2½-grain gelatine-coated pill of exalgine, which is a convenient means of administration. I have generally given one or two of these pills, according to age or conditions.

It has been claimed that this drug does not produce cyanosis, as do antipyrine and acetanilid. In a few cases I have observed slight cyanosis. However, I do not believe this symptom, even when produced, is important.

I have administered exalgine in typhoid fever to good advantage. It reduced the temperature gradually without depression and aided in the securement of rest.

Owing to impaired digestion in these cases, I have almost uniformly given the following formula:

℞.—Exalgine (McK. & R.), ℈ii.
Spts. Vini Gallici, . ℥i.
Elix. Lactopeptine, . ℥iii.

M.—Desert spoonful every two to four hours, as indicated.

An elegant and agreeable form to give the drug is the Exalginique Cordial prepared by McKesson & Robbins. Each tablespoonful contains two and one-half grains of exalgine, but the cordial will take up as much more exalgine very readily if one desires to increase the strength. For delicate and æsthetic patients this is an admirable means of administration.

I agree with other observers that the analgesic property of exalgine is the predominating one.

I have observed no marked depression from the drug. The skin is rendered more active, and I think the secretions of the alimentary canal are favorably affected. The urine is somewhat diminished, and in a case of diabetes the amount of sugar was decreased. Rheumatism and neuralgia were favorably influenced.

A case of facial neuralgia in a physician was very satisfactorily treated by the use of exalgine. The paroxysms were relieved when present and were prevented by doses of exalgine in anticipation.

If the medical profession had never accomplished more for human kind than that which it has done in the direction of relieving pain and securing sleep, no one could safely say its mission had been in vain.

Pain, while being of great aid to us in the diagnosis, is, if left unrelieved, a cause of exhaustion of nervous force,—a destroyer of sleep, appetite and digestion; if long continued, it leads to changes shortening existence. It may in itself be so severe as to abruptly terminate life.

I believe it is the duty of the physician to save his patient any possible twinge of pain—within proper limits, of course—but in doing so he should guard carefully against the possibility of self-drugging upon the part of the patient. With this end in view, I deem it to be his duty for him to dispense directly to the patient all analgesics and sedatives. By so doing, he limits absolutely the amount taken,—at least it cannot be long continued against his orders. An additional advantage is that, when desirable—and that will be in nearly all cases—he can keep from his patient a knowledge of the drug taken.

I think we are safe in concluding that all of the derivations of the aromatic series, being antiseptic, antipyretic and analgesic, are of great value to us in our battles with disease.

Acetanilid, so far, stands at the head of the list in my records, for the reason that I have had a longer and more extended experience with it.

The brief experience I have had with exalgine has been so satisfactory as to justify a more extended use.

COLD-WATER TREATMENT OF FEVER. A SIMPLIFIED METHOD. — Preyer and Flasher first advocated, in 1884, and Heller in 1886, spraying the body as a safe and convenient method of reducing the body temperature. Placzek (*Virch. Arch.*, cxv.) has recently taken up this treatment. After using a pint and a half of water of from 53° to 59° F., he uses water of a higher temperature, thus dilating the capillaries and inducing a consequent loss of considerable body heat.

Not requiring more than twenty-five minutes for the application, it may be repeated several times a day; besides this, the method has the advantage of simplicity and comfort. The patient remains in bed, all coverings removed, and a rubber or wax cloth laid under him.—*The Polyclinic.*

RECURRENCE OF MAMMARY CARCINOMA. — Dr. Haidenhain (*Münch. Med. Wochensch. Med. Chir. Rundsch.*) has made microscopical examinations of a number of mammæ removed for carcinoma in order to determine in what manner recurrence took place, as this latter fact is of such frequent occurrence, even where the removal of diseased tissues has been thought to be amply free. He found that the extent of infiltration is much greater than is ordinarily supposed to be the case, and to improve the chance of a permanent recovery he recommends the removal of the entire gland, together with the uppermost layers of the pectoralis major muscle, even where the tumor is freely movable; if the muscle be at all involved it should be removed in toto, if possible, in such a manner that not even a single fibre is allowed to remain.—*Weekly Med. Review.*

SOCIETY NOTICES.

American Academy of Medicine.—The Annual Meeting of the Academy, for 1889, will be held at Chicago, Ill., November 13 and 14, being postponed to that date by authority of the Council.

Academy of Medicine.—

Monday, September 23, Dr. E. G. Zinke will report a case of "Rupture of the Liver," and Dr. B. M. Ricketts a case of "Pemphigus."

September 30, Dr. B. K. Rachford will report some "Experimental Studies on Typhoid Fever."

October 7, Dr. G. A. Fackler will read a paper on "Calomel as a Diuretic."

Cincinnati Medical Society.—

September 24, Dr. Dan Millikin, "Fever."

October 1, Dr. George H. Goode, "Diphtheritic Affections of the Eye;" Dr. B. M. Ricketts, "Care of the Skin without Soap or Water."

October 8, Dr. F. O. Marsh, "Recent Anatomical Study of the Spinal Cord, and Paths of Conduction;" Dr. Philip Zenner, "Clinical Significance of the Tendon Reflexes."

October 15, Dr. F. C. Gores, ———.

October 22, Dr. Theo. Bange, "Milk Inspection of Cincinnati, with Suggestions for Dairy Reform;" Prof. Karl Langenbeck, "Milk Adulteration, and the Milk Supply of Cities."

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

Terms, $3.50 per annum in advance.

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EDITOR AND PUBLISHER,
199 W. 7th Street, Cincinnati, Ohio.

Cincinnati, September 21, 1889.

The Week.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The second day's sessions were opened with a series of papers on tuberculous diseases, the first being on Prognosis in Pulmonary Diseases, by Dr. W. C. Chapman, of Toledo; the second on Treatment of Pulmonary Phthisis, by Dr. C. F. McGahan, of Chattanooga, Tenn.; the third on Differential Respiration, with Exhibition of Apparatus, by Dr. Frank C. Wilson, of Louisville; the fourth on the Contagiousness of Tuberculosis, by Dr. Wm. Porter, of St. Louis; and the fifth and last of the series was by Dr. Edwin Ricketts, of Cincinnati. Here was a complete symposium of papers on one subject, and that perhaps the most important one the practitioner of medicine is called upon to study.

A better or more satisfactory treatment of tubercular affections, as presented in the papers and the succeeding discussion, it has never been our privilege to hear. The paper by Dr. Chapman we will give our readers. The one by Dr. McGahan favored certain climatic localities as being especially adapted to those suffering from phthisis, notably Aiken, S.C., Asheville, N.C., and Denver, referring to a valuable paper by Dr. Dennison, of the latter place, while he narrated the advantages of each. The author has had a very large experience in the treatment of this affection at some health resorts, and very intelligently speaks of his observations. The paper by Dr. Wilson illustrates a very simple machine, which is an ingenious bellows contrivance, for use in chest gymnastics. In many cases its use must be productive of very great benefit to the patient and satisfaction to the doctor. The paper by Dr. Porter on the Contagiousness of Tuberculosis reflected his own valuable observations, and presented about all that is known on this important subject. The one by Dr. Ricketts was the history of a most interesting case in diagnosis and treatment, both of which were successful. The discussion was a continuous compliment to the authors, and consumed the entire forenoon.

In the afternoon Dr. A. B. Shaw, of St. Louis, read a paper on Suspension in Affections of the Spinal Cord, exhibiting a very simple apparatus, swung by a spring scales, to indicate the exact weight suspended by the occiput and chin and amount suspended by the armpits. A patient with locomotor ataxia was present and used to illustrate the paper. The author has treated twenty-seven patients by this method, nearly all with improvement and none with detriment. The paper excited very much attention and subsequent discussion.

A paper narrating a case of Rupture of Ovarian Cyst, by Dr, Hugo O. Pantzer, of Indianapolis, was of special interest to the gynecologists present.

At the opening session on the third day Dr. O. Everts, of College Hill, O., read an able paper on the Treatment of the Insane as Related to Other Conditions of Society, Historically Considered. This was followed by a paper on Orthopædics of Infantile Paralysis, by Dr. Geo. W. Ryan, of this city. A paper on Conditions which Precede Serious Lesions of the Kidney, by Dr. C. S. Bond, of Richmond, Ind., is one of a series of four papers by Dr. Bond on Lesions of the Kidney, one of which was read at St. Louis last year at the meeting of the Mississippi Valley Medical Association and two others at the Indiana State Society meetings. These papers are among the most valuable contributions that have ever been made to this subject. The profession at large is to be congratulated on the fact that they will soon appear in permanent monograph form. A paper on Rational Treatment of Gonorrhœa, by Dr. Bransford Lewis, of St. Louis, attracted attention. Dr. A. M. Owen exhibited a little boy whose cranium had been fractured and from which he removed a remarkable amount of bone substance, the wound healing by first intention and there being no perceptible rise of temperature or mental symptoms. Kraurosis Vulvæ, with Photographic Illustrations of Dermatitis Tuberosa of Bromic Origin was the title of a paper read by Dr. A. H. Ohman-Dumesnil, of St. Louis, followed by a paper by Dr. G. Frank Lydston, of Chicago, on Apparent Concretions and Transformations of Syphiloma of the Tongue. A paper on the Cautery *vs.* the Snare in the Treatment of Nasal Hypertrophies, by Dr. Edwin R. Lewis, of Indianapolis, excited a good deal of discussion, as did a paper by Dr. S. S. Bishop, of Chicago, on Naso-Pharyngeal Catarrh, with its Abortive Treatment, and one on Sympathetic Affections of the Eye Resulting from Disease of the Nasal Passages, by Dr. Francis Dowling. These papers were discussed together.

The plan of grouping cases on similar subjects and having them read in succession and then discussed saved much valuable time and very greatly added to their interest. It is hoped this plan will be closely adhered to in future meetings.

The social features of the meeting were just a constant bubbling of hospitality. It literally seemed as if the town and all its citizens were ours, and the people our servants. The banquet for five hundred in Garvin's Grove will long be remembered as a veritable scene of enchantment, only to be compared to Aladin's visions. The edibles were the best prepared we ever sat down to on such an occasion, and served by pretty, smiling girls. The toasts—Love was there and said things in his inimitable way—were worthy of a trip to Evansville to enjoy. The second evening was opened with a concert that would have been creditable to our College of Music, which we think is saying a good deal. A dance, and the inevitable refreshments, saw the evening away into the wee sma' hours ayant the twal.

* * *

The most notable subject discussed outside of the sessions, and which met with universal commendation, was the expressed desire that the American Medical Association would officially recognize this society as a branch organization. Such men as Murdoch, of Pittsburg; Love and Porter, of St. Louis; Owen, of Evansville; Hollister, Bishop, Lydston and Gray, of Chicago; Harvey, of Indianapolis; Larrabee and Reynolds, of Louisville, and a host of others actively favored the movement, while there were none to dissent from the proposition. The carrying out of this plan would no doubt open the door for other district associations to apply for the same kind of recognition, which would eventuate in a more thorough and complete organization of the entire medical profession of this country.

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations. Leonard Freeman, M.D.,
J. C. Oliver, M.D.,
Otis L. Cameron, M.D.,
F. O. Marsh, M.D.,
Curators and Microscopists.

THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

The Annual Meeting of this body of specialists was held in the large parlor of the Burnet House on the 17th, 18th, and 19th of this month. The number in attendance was larger than at any previous meeting, while the papers and discussions indicated that the members are in the very forefront of the observers and investigators in this important specialty of our art.

Next week we will give our readers a very full report of all the papers and dissussions.

Wednesday evening, Dr. W. H. Taylor, the President of the Association, gave its members a very handsome reception at his residence on West Seventh Street. A goodly number of the local profession also were there as invited guests.

The meetings have been well attended by physicians of this city and surrounding country. In fact, the accommodations of the large room were scarcely adequate to hold the attentive and deeply-interested audiences.

Our only regret is that the members were so continuously taken up with their special work as to be unable to see the sights of the city.

It is with no small degree of pleasure that we note from year to year a very material improvement in the papers presented at society meetings. Platitudes are scarcely tolerated, and what is said is nearly always the result of mature thought. The man who talked without saying something has joined the great majority, leaving no direct heirs. So mote it be.

FOR SALE.—A lucrative established practice for sale, with good two-story frame house and office, stables, etc., all in good order. Possession given immediately upon sale of premises, and good will of practice to go with sale. Terms reasonable. Cause for selling—wish to retire. Address,
Dr. C. T. McKibben, Moscow, O.
Or Lancet-Clinic office.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending September 14, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	...	..	...	..	...	..	...
2nd	...	..	...	..	...	..	...	..	...	..	...
3rd	...	..	...	..	...	..	...	..	...	1	...
4th	...	..	...	..	...	..	1	..	...	..	...
5th	...	..	...	..	...	..	...	..	...	..	1
6th	...	..	...	..	...	..	...	..	...	..	...
7th	...	..	1	..	...	..	1	..	...	..	...
8th	...	..	...	..	...	..	...	..	...	..	..
9th	...	..	...	..	...	..	1	1	...	..	...
10th	...	..	...	..	...	..	1	..	...	..	...
11th	...	1	...	..	...	..	1	..	...	..	...
12th	...	..	...	..	...	..	1	1	...	..	...
13th	...	..	...	..	...	..	1	1	...	..	...
14th	...	..	...	..	...	..	1	..	...	..	...
15th	1	..	...	..	...	..	...	..	...	..	...
16th	...	..	...	..	...	..	...	..	...	..	...
17th	...	..	...	..	...	..	1	..	...	..	...
18th	...	..	...	..	...	..	...	..	...	1	...
19th	...	1	..	..	...	..	2	..	...	..	...
20th	...	..	...	..	...	..	1	..	...	..	...
21st	...	..	...	..	4	..	...	..	...	..	...
22nd	.	..	...	..	...	..	...	..	...	..	2
23rd	...	..	...	..	...	..	...	1	...	..	...
24th	...	..	...	..	...	..	...	..	...	..	...
25th	...	..	...	..	...	..	1	..	...	..	...
26th	...	..	...	..	...	..	...	..	...	..	...
27th	...	..	...	..	...	..	...	..	...	..	...
28th	...	..	...	..	...	..	...	..	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	5	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	..	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	1	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	1	2	1	..	4	..	18	4	...	3	3
Last week	3	1	2	2	1	..	31	..	...	5	...

The following is the mortality report for the week ending September 14, 1889.

Cholera Infantum	3	
Diarrhœa	3	
Diphtheria	4	
Entero-Colitis	1	
Measles	2	
Typhoid Fever	3	
Other Zymotic Diseases	6	22
Cancer	3	
Phthisis Pulmonalis	13	
Other Constitutional Diseases	3	19
Apoplexy	2	
Bronchitis	3	
Convulsions	6	
Heart Disease	6	
Liver Disease	3	
Pneumonia	10	
Other Local Diseases	18	48
Old Age	3	
Premature Birth	2	
Other Developmental Diseases	4	9
Accidental	8	
Suicidal	2	10
Deaths from all Causes		108
Annual death rate per 1000		17.28
Deaths for corresponding week in 1888		90
Deaths for corresponding week in 1887		91

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 41 observers (embracing 34 counties) show the following diseases to prevail for the week ending Friday noon, September 13, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Diarrhœa	25	72
Dysentery	14	22
Cholera Infantum	14	20
Tonsillitis	14	17
Cholera Morbus	11	26
Remittent Fever	11	19
Bronchitis, acute	11	15
Rheumatism (acute)	9	12
Typhoid Fever	8	19
Erysipelas	7	7
Intermittent Fever	6	11
Typho-Mal. Fever	6	10
Diphtheria	4	5
Scarlet Fever	3	4
Pneumonia	3	3
Pleurisy	3	3
Whooping Cough	2	4
Consumption (Pul.)	2	2
Cerebro-Spin. Men.	0	0
Measles	0	0
Puerperal Fever	0	0
Croup, membranous	0	0

REMARKS.

Diphtheria reported by observers at Zanesville, Elmore, Maineville, and Kalida. Reported by health officers: Cincinnati, 4 deaths; Dayton, 7 cases; Toledo, 9 cases, 1 death; Columbus, 6 cases; Salem, 1 death; Mansfield, 3 cases, 3 deaths; Hamilton, 1 case.

Scarlet Fever reported by observers at Kalida, Louisville, and Rocky River. Reported by health officers: Toledo, 5 cases; Columbus, 2 cases; Dayton, 1 case; Youngstown, 5 cases; Bucyrus, 6 cases; Delphos, 1 case; Alliance, 1 case; Findlay, 1 case; Fostoria, 1 case.

Typhoid Fever reported by observers at Summerfield, Reynoldsburg, Louisville, Botkins, Range. Reported by health officers: Cincinnati, 3 deaths; Collinwood, 4 cases; Alliance, 2 cases; Middleport, 2 cases, 1 death; Toledo, 1 case, 1 death; Millersburg, 1 case; Delphos, 2 cases, 1 death; Mansfield, 3 cases, 1 death; Youngstown, 2 cases; Piqua, 5 cases; Bluffton, 3 cases.

C. O. PROBST, M.D., Secretary.

In Memoriam.

THE LIFE AND CHARACTER OF C. C. HILDRETH, M.D., A. B., A. M.

Read before the Zanesville Medical Society, September 5, 1889,

By H. Culbertson, M.D.,
Zanesville, O.

Having been appointed by this Society to read an essay upon the life and character of our departed brother, I have the honor to present the following testimonial:

The life of Charles Cook Hildreth was extremely uniform, direct, and complete. His mission was simply to heal the sick.

He was born at Marietta, Ohio, April 28, 1811, and died August 11, 1889, at Zanesville, Ohio, the place of his life-work. His father, a native of Massachusetts, was Dr. Samuel Prescott Hildreth, and his mother Rhoda Cook Hildreth. Educated, in part, at Marietta, Ohio, his collegiate course was completed at Ohio University, Athens, Ohio. Graduating in 1828 or 1829, he was made an A.B. and A.M. by that college. In March, 1833, he graduated at the Medical College of Ohio as M.D., and soon settled at Zanesville, Ohio, and continued in the practice of his profession here until the day he was paralyzed, a period of fifty-six years. He was married to Miss Sarah A. Swearengen, March 23, 1836, who survives him but is in feeble health.

Dr. Hildreth enjoyed a large practice during all his professional career. Although a skillful physician, he was also a very able surgeon and obstetrician, and in all these domains his practice was extensive and success great. He was a member of the old Medical Society of Zanesville in 1835 or 1836; of the late Muskingum County Medical Society; of the late Zanesville Academy of Medicine; of the Zanesville Medical Society; of the Muskingum Valley Medical Society; of the Ohio State Medical Society; and of the American Medical Association. He contributed largely to the medical journals in this and other states. He did not belong to any societies other than medical. He invested his means mainly here, in real estate and corporate companies. His life was a most active one in the practice of his beloved profession, indefatigable in his efforts for the sick and dying, scarcely ever absent from his post, a Nestor of medical skill.

Dr. Hildreth was not a strong man physically, yet he possessed great tenacity of life, which endured for more than three score and ten years, and he went down in the harness. There is no doubt had he cast aside his work and taken his seasons of rest and pleasure he would have lived several years longer. But he loved his professional work, and this was his *pleasure;* and so he lived, working day after day and year after year, in sunshine or cloud, sick or well, for the good of his patients.

His death was unexpected. Although he had evidently been failing for the last three years (especially in the last six months), he clung to his duties. On Tuesday afternoon, August 6, last, just after performing an operation upon a diseased jaw, he became speechless and nearly fell into a chair; soon right hemiplegia developed, and motion and sensation became *nil* on this side. The left side of the body was normal. Tuesday night he became unconscious, and remained so until early Friday morning, when he recognized parties and signified answers by nodding his head. This continued until Friday evening, when his respiration became impaired for the first time during the progress of the case. The heart also began to fail about this time. Under remedies the heart became regular, but the respiration continued to fail from the return of hemorrhage upon the brain, and he died comatose on Sunday noon, August 11, 1889.

The hemorrhage of brain was both primary and secondary, and from the impairment of speech the left middle cerebral artery was probably ruptured and the speech center and other motor and sensory centers involved. His blood vessels were no doubt calcareous. The first day, in the evening, he had one involuntary stool, and also incontinence of urine, which latter persisted throughout the case. He had the use of his left extremities throughout the case. He died with his desire gratified, on the fifth day of his sickness, for he did not wish to be long sick.

The *character* of Dr. Hildreth was as well-defined as his life. In him we witness the advantages of a thorough literary and medical education. He possessed a trained mind over which he had perfect control. A mind which enabled him to analyze the most abstruse medical problems and to accept that which was truth and reject error. Seldom do we find so acute a logician as he. His indications of cure were clean cut, and his application of remedies pointed and effectual. His powers of diagnosis were excellent. He never gave up the ship until life was extinct. He was an early and late attendant at the bedside in serious cases, and watched their progress with unusual closeness day and night. His life was truly one long self-sacrifice to the interests of his patients. He took no respite whatever from his labors, and never visited any distant place of recreation. He was ever in his office when not attending to his professional duties elsewhere. His office was his home, and here he greeted his friends and patients warmly and sincerely. But nowhere did he shine more brilliantly than at entertainments of his medical brethren at the meetings of medical societies at his home. He was very fond of the drama, and until within the last three years he attended all such entertainments as were worthy. This was his greatest amusement. He was a fluent and accurate speaker on medical topics, and many will remember the force of his practical teachings. I think therapeutics in medicine was his favorite subject. To him the art of medicine was nothing unless it cured, or aimed to cure, disease. In surgery he was bold, cautious, and decisive. As to the propriety of executing an operation, none were better judges than he. He had an art, I think peculiar to him, of doing a minor operation and gaining a successful issue of the case, when many would have done bolder surgery and sacrificed more tissue.

He was an obstetrician of large experience, great skill and success. I doubt if anyone exceeded him in art and practice in this branch. I have been surprised at the facility with which he applied forceps and performed obstetric manipulations. He, I believe, was the first to propose the knee-elbow position in intra-uterine versions. He advocated the use of anæsthetics, and the simultaneous employment of ergot in labor, and in this practice he was remarkably successful and skillful.

In surgical operations his delicate hand wielded the knife with grace, skill, precision, and rapidity, and in fifty-six years he did all of the major and minor operations, many of them repeatedly.

Notwithstanding his numerous professional duties and obligations, he found leisure to devote to literary pastime. It is not generally known, but it is true, that he was familiar with poets and poetry, and could repeat, impromptu, line after line of his favorite authors. I think he preferred the fascinating lines of Longfellow. It is true also that he wrote beautiful poetry himself, and his poetical lyrics were laden with sparkling wit. Yet he never published any of such productions.

Dr. Hildreth was the most reticent man I have ever known. He used to say, "Why speak ill of any one; this world is large enough for us all." The only way one could discover his feelings was by his acts. He detested unprofessional tricks to obtain practice. He lost all confidence in such parties and would have no personal relations with them. If, however, he found parties violating the secrets or obligations of medical consultations, nothing would induce him to meet such persons in council. But not one word would he express against such physicians. He was a rigid interpreter and observer of the code of ethics and expected others to be the same. I never knew him to do a dishonorable act in his profession.

At the same time he was forgiving, for beneath his proud nature he possessed one of the kindest hearts. He was not demonstrative, but his acts spoke tenderness louder than words. He was a true friend and one that could always be depended upon. He abhorred a lie, and lost confidence in anyone detected in a falsehood. He held "an honest man is the noblest work of God." He was cautious and sympathized with those about him in his professional, social, and financial relations. He was quite liberal with his patients, but in a financial bargain he was as shrewd as any one, and his investments were profitable.

He was the most punctual man I have ever known. He met every engagement when due, and the consultation found him present to the minute.

For sixteen years I had the pleasure of being associated with him as an Examining Surgeon in the Pension Board at this place. Never was there a more just and conscientious examiner than he. I need scarcely say his ability was great in this capacity, and he always sympathized with soldiers. His motto was: Lay well the foundation, be secret in design, execute promptly, and persevere.

So then thus has passed away from this earth a truly great man and good physician. It becomes this Society to put on, not these exterior habiliments which bespeak sorrow for departed ones, but that enduring grief which lives and dwells in the heart.

I may sincerely and devotedly ask, "When shall we, in this Society, see his like again?" Answer if you can!

In reference to our lamented brother and ourselves, we may say with Randolph:

> "Strive to live well: tread in the upright ways,
> And rather count thy actions than thy days;
> Then thou hast lived enough amongst us here,
> For every day well spent I count a year.
> Live well, and then, how soon soe'er thou die,
> Thou art of age to claim eternity."

ON SANITATION.—Edward Chadwick, a distinguished sanitarian, has said that he could construct a city which would give any desired death-rate from five, or possibly less, to fifty or more in 1,000 inhabitants annually. This has the endorsement of the President of the Health Department of the British Social Science Association, who, at an annual meeting some years ago, expressed his unqualified belief in the feasibility of Mr. Chadwick's proposition. If this is true, and it comes from very high authority, the responsibility of municipal authorities and boards of health is measured through a wider range than is generally supposed. With a death-rate ranging about twenty-five per 1,000, health officials should multiply their diligence by about five to securo the minimum death-rate.—*The Sanitary News.*

OLD MRS. SMILEY: Next time I get took down sick, my dear, I wish ye wouldn't have that there young sprig of a doctor come to attend me. I don't go much on young doctors, no how. Mr. Smiley: Well, Maria, who would you like to have me call? Mrs. S.: I've kinder took a notion to the doctor around the corner. I dunno much about him; but I see he's got a sign out "Veterinary Surgeon," and I think he must be a man of experience.

* * *

Selected.

PROPHYLAXIS OF TUBERCULOSIS.

REPORT OF THE PARIS COMMISSION.—INSTRUCTIONS TO THE PUBLIC.—THE DISCUSSION AT THE ACADEMY OF MEDICINE.

[*Boston Med. and Surg. Journal.*]

The Permanent Commission, appointed last year by the Congress for the Study of Tuberculosis, has just presented its report, through M. Villemin, Chairman. This report embodies certain instructions to the public, which the Commission deems of sufficient importance for general adoption. We can only summarize this report, a comparison of which with those issued in Berlin and New York, and previously referred to, offers interest.

Tuberculosis is, of all diseases, that which has the most victims, especially in the cities. More than one-fourth of the mortality of Paris, during the year 1884, was from tuberculosis in some of its forms.

Tuberculosis is a parastic, virulent, contagious, transmissible disease, caused by Koch's bacillus. The microbe penetrates the organism by food, by air of respiration, and through the skin and mucous membranes by abrasions, excoriations and divers ulcerations.

Certain diseases, as measles, chronic bronchitis, pneumonia; certain constitutional states due to diabetes, alcoholism, syphilis, predispose to tuberculosis.

The cause of tuberculosis being known, there is but little difficulty in preventing its dissemination and propagation, if proper prophylactic means are taken.

The parasite of tuberculosis may infect the milk, muscles, and blood .of animals which serve for the food of man.

Raw meat, underdone meat, blood, may contain the living germ of tuberculosis, and should be interdicted. For the same reasons, milk should be boiled before being ingested. By reason of the dangers which attend the use of raw milk, the protection of young children, who are so susceptible to tuberculosis, should earnestly engage the attention of mothers and nurses. Lactation by a healthy woman is the ideal method. The tuberculous mother should be forbidden to nurse her infant, which should be confided to a healthy wet-nurse living in the country, or where the hygienic conditions are good. The risks of tuberculous contagion are less in the country than in the city. If nursing at the breast be impossible, and the infant is reared on cow's milk, the latter ought always to be boiled. Goat's or ass's milk is less objectionable, and may be given unboiled.

By reason of the dangers which attend the use of butchers' meat, which may come from animals that were tuberculous, though having every appearance of health, the public should insist that the inspection of all meats, as required by the law, should be rigorously enforced.

The only sure way of avoiding the dangers arising from meat derived from tuberculous animals, is to subject such meat to a thorough cooking, which shall include the entire substance in depth, as well as the surface; meats completely roasted, boiled, or broiled are alone safe.

As the germ of tuberculosis may be transmitted from the tuberculous to the healthy man, by sputa, pus, dried mucosities, clothing, or other objects impregnated with fine tuberculous particles, it is necessary for the public, in order to be protected against the contagion:

(1) To know that, the sputa of phthisical patients being the most formidable agent of the transmission of tuberculosis, there is danger in allowing these expectorated matters to be deposited on the ground, on carpets, on drapery, screens, towels, handkerchiefs, clothing, and bed linen.

(2) To be persuaded that the use of spittoons is obligatory on all phthisical patients everywhere. Spittoons should always be emptied into the fire and cleansed with boiling water. They should never be emptied on dung heaps, on garden soil, (where they may tubercularize fowl), nor into privies.

(3) To refrain from sleeping in the bed of a tuberculous patient; to remain as little as possible in a room occupied by such person. This caution is especially applicable to young children.

(4) To sequestrate from all places occupied by phthisical patients, individuals considered as predisposed to tuberculosis; children born of tuberculous parents, or that have lately had measles, small-pox, pneumonia, etc; all diabetic patients.

(5) To avoid using objects which a phthisical patient may have contaminated (garments, bed-clothing, toilet implements, playthings, etc.) till after previous disinfection (in the hot-air stove, by boiling water, sulphur fumigations, etc).

(6) To insist that the rooms of hotels, furnished houses, cottages occupied by phthisical patients at watering-places or winter stations, shall be equipped and tapestried in such a way that disinfection may be easily and completely effected after the departure of each patient. It would be better that these apartments should have no hangings or tapestry, and that they should be whitewashed; the floors should be bare, either oiled or painted. Hotels and furnished cottages in which such hygienic precautions and measures of disinfection are taken should alone be patronized by the public.

At a meeting of the Academy of Medicine, August 6, 1889, this report was discussed. Dujardin-Beaumetz was in favor of suppressing entirely the sections pertaining to raw meat and raw milk. There is nothing that proves the possibility (in man at least) of the transmission of tuberculosis by butchers' meat. As for milk, if it be true that it may on certain occasions contain bacilli, we must not forget that in order that milk may be thus contaminated the cow must not only be tuberculous, but must also have tuberculous mammitis.

Germain Sée did not believe in the communication of tuberculosis by the air of respiration. The bacillus cannot live in the air; it never develops and multiplies outside of the organism of man or the animal; in the open air dies rapidly, as, in order to live, it needs a temperature of 30° C. The matter of atmospheric contagion is a bugaboo, which has already wrought trouble in families by causing the poor consumptive to be treated like a leper—shunned and abandoned by his nearest relatives. It has been demonstrated experimentally, that air taken three or four yards from the bed of a consumptive patient does not contain a single bacillus; but if the air exhaled by a phthisical person is inoffensive, the sputa are not so, and too much pains cannot be taken to disinfect and destroy all expectorated matters.

With regard to the prohibition of meat and blood, it is a fact, said Professor Sée, that the blood is never virulent, and animal flesh, according to recent experiments (Nocard, of Alfort), far from containing bacilli, destroys them by the muscular juice which the flesh contains. Hence, there is no necessity, in order to destroy the bacillus, to boil meat to a pap, to forbid roast meat, underdone meat, or even raw meat. If we were to hearken to the Commission, he thought we should be deprived of some of our best alimentary products, and nothing would be served on our tables that was not spoiled to the taste by over-cooking, as well as rendered more indigestible thereby.

With regard to the care that should be taken of those that were hereditarily predisposed to tuberculosis, he thought that excessive precaution was an evil; the best prophylactic is gymnastic exercises and hydrotherapy.

Professor Sée did not think persons especially liable to tuberculosis, who had been subject to colds, bronchitis, or who had had pneumonia, measles, whooping-cough, or small-pox. On the contrary, he had found such persons remarkably exempt from tubercular diseases.

The Heredity of Tuberculosis.—Hutinel, of the *Hopital des Enfants Malades*, has published a communication on the "Heredity of Tuberculosis," (*Semaine Medicale*, 1889, p. 229), of which the conclusions are as follows:

As for the direct transmission of the germ from the parents, we are warranted in affirming that communication by the father is not proved, and is very problematical: transmission by the mother may take place, but it is extremely rare.

Heredity, nevertheless, exists; for if the offspring of phthisical parents are not born tuberculous, they are *tuberculizable*; they may not, it is true, have brought with them the germ from their birth, but they have inherited a culture soil (*terrain*) favorable to its development.

In accordance with these conclusions, which are in harmony with a multitude of clinical observations, Langerhaus, who has long practiced in Madeira, has noted that among the individuals not phthisical that have come to that island for a certain number of years, only those born of tuberculous parents become infected by the numerous phthisical patients resorting to that island every year. Of every ten individuals with phthisical parentage, one died of tuberculosis, while the proportion of those becoming consumptive with no hereditary predisposition has been as one to sixty-eight.—*Boston Medical and Surgical Journal.*

REST IN THE TREATMENT OF PULMONARY CONSUMPTION.

[*Medical and Surgical Reporter.*]

The consumptive may be regarded as verging towards a state of physiological bankruptcy. The disease makes a fatal drain on his constitutional resources. With him it is a real living warfare between the forces of his body and those of the disease. The line which divides defeat from victory is neither hard nor fast, but constantly shifts its position in accordance with the ebb and flow of his vitality. When he is weak the disease advances, and when he is strong it recedes. The cardinal therapeutic indications are therefore towards a fortification of the constitutional resistance. This can only be accomplished by economizing the bodily forces—that is, by diminishing the outgo and increasing the income. Physiological rest is one of the most valuable adjuvants in securing this end. When an individual is in danger of financial bankruptcy he must either stop his expenditures or increase his income, or he will certainly go to the wall. If he does only one of these things his recovery will be less rapid, or more doubtful than if he cuts down his expenses and enlarges his income at the same time. In other words, he must call a halt or take a rest, in his downward career, until his capital has sufficiently reaccumulated, when he will be able again to compete successfully with other capitalists.

Nothing illustrates more clearly the state of the consumptive than this example taken from the field of finance. His expenses are the waste caused by fever, loss of flesh, anorexia, sleeplessness, night sweats, cough, and unnecessary exercise. These must be stopped. The fever must be reduced, the cough and night sweats checked, sleep must be produced, and over-exercise must be discouraged. Nothing conduces more towards bringing about these results than rest. Exercise, which is such a fashionable remedy in this disease, often defeats the very object for which it is intended. It is good for the strong, but may be very baneful to the weak. Exercise which entails benefit on the body implies the pre-existence of strength, which if properly used will grow and accumulate; but the consumptive is already tottering on the brink of physiological insolvency, and has no strength or capital to place out as an investment in exercise; and therefore his best policy is to be conservative, and to retain all he can obtain. It is a very frequent experience to find a consumptive return from a walk which he managed to take under difficulties, not only with an elevated temperature, but with a body exhausted to such a degree that he secures neither the increase of appetite nor the return of vigor which he anxiously anticipated. Experience teaches, therefore, that in pulmonary consumption exercise often, if not always, breeds fever, takes away the physiological capital which should be devoted towards fortifying the processes of secretion, digestion, assimilation, and nutrition, and it should be displaced by rest until the vigor of the body is firmly re-established.

According to this plan of treatment patients are, if necessary, kept on their backs, and, if the weather permits, are carried out of doors, or, if able, are allowed to walk and sit quietly in the open air, the main idea being to secure as close an approach to absolute rest as is possible under the circumstances, taking into full consideration the permanent wants and comforts of each patient. Recent proof of a practical character leads us to believe that this method of treatment, combined with rational medication and appropriate feeding, offers more encouragement towards a successful solution of the therapeutics of this disease than any other yet instituted.

Hæmostatic Effect of Antipyrine.—Dr. Huchard shows how this effect of antipyrine may become a serious objection. He gave it to a woman who was suffering from dysmenorrhœa; the flow was immediately suspended; there was shivering, cyanosis, and tendency to syncope. He has noticed the same effect, but less marked, in two cases in which he prescribed the drug under similar circumstances.—*Weekly Med. Review.*

Nux Vomica in Cardiac Failure.—Dr. A Bowie reports two cases of cardiac failure in which death seemed imminent, that were speedily relieved by small doses of the tincture of nux vomica every half hour for four doses, then every hour. He considers it the most valuable remedy that we have.—*London Lancet.*

ANTACIDS IN DYSPEPSIA AND GRAVEL.

[*London Lancet.*]

Sir William Roberts, in opening the Therapeutic Section of the British Medical Association, said that there were few simpler problems than those relating to the palliative treatment of acid dyspepsia and the chemical prophylaxis of uric acid gravel, but there were some practical points in carrying out the treatment which were neither simple nor well known. Antacid agents might be classified into those which were designed to take effect in the stomach, or gastric antacids; and those which were designed to take effect in the kidneys, or renal antacids. The gastric antacids in common use consisted of the alkaline and earthy carbonates and lime-water. Renal antacids combined, in addition to these, the acetates and citrates of potash and soda, which were changed in the *primæ viæ* into carbonates of these bases.

Gastric antacids were employed in two distinct classes of cases—namely, in acid dyspepsia, and in a variety of conditions characterized by great irritation of the stomach, often with vomiting, which we sought to allay by the administration of milk mixed with lime-water. For acid dyspepsia the lozenge was the best mode of administration of an antacid. The Pharmacopœia had two lozenges of this kind, the troch. sod. bicarb. and the troch. bismuthi. The latter was to be preferred. It owed its antacid properties to the chalk and magnesia which it contained, the bismuth being probably inert. Many lozenges sold in the shops contained pungent spices which were injurious. The Tichy lozenges were valuable, but rather costly. It was well to vary the antacid from time to time.

The question might now be put, Is there any harm in the practice of habitually using antacids for the relief of acid dyspepsia? He had naturally at one time regarded the practice with misgivings, but a more extended experience had led him to believe that it was harmless. He used the bismuth lozenge largely, but with the following precautions: They were not to be used at or near meal-times; they were not to be used regularly or systematically, but only when gastric pain was present and produced real discomfort; lastly, the use of the lozenge was to be discontinued if it failed to cut short the pain. Lime-water and milk was a favorite remedy, and often very successful. It sometimes failed, owing to the very low saturating power of lime-water. It was often desirable to substitute a solution of from five to ten grains of bicarbonate of soda per ounce for the lime-water.

The use of renal antacids rested on an equally rational basis. To prevent uric acid gravel forming we had only to keep the urine alkaline; but, simple as it was, there were some practical difficulties in the way, owing to the persistence of the tendency to the uric acid formation. It was very important to remember that this tendency did not last throughout the entire twenty-four hours, the necessary conditions being only present during the hours of sleep. It followed that if we safeguard the night, the day might generally be left to take care of itself. In the milder cases a full dose of the alkalizing agent at bedtime was sufficient. The citrate of potash was the best preparation. The dose for an adult should not be less than from forty to sixty grains, dissolved in three or four ounces of water. In severer cases a second dose should be taken about the middle period of the hours of sleep. In still more severe cases additional doses might be required, but usually only temporarily. The essential point in the prophylactic treatment of uric acid was to guard the urine from precipitating within the precincts of the kidney. An antacid which was too feeble to render the urine actually alkaline might postpone the time of precipitation.

Chronic Rhinitis.—In the treatment of chronic rhinitis (hypertrophic), Dr. Sajous recommends applications of chromic acid to the enlarged sinuses, the acid being applied on a copper probe and held in the flame of an alcohol lamp till it changes color, previous to application.

* * *

Doctor: "You see, wifey, dear, I have pulled my patient through after all! A very critical case, I can tell you."

"Yes, dear hubby; but then you are such an excellent physician! Ah, if I had only known you five years earlier, I feel certain my first husband—my poor Thomas—would have been saved!"—*Archives of Pediatrics.*

TEMPERATURE IN DISEASE.

By C. Coleman Benson, M.D.

[*Southern Clinic.*]

Normal temperature is 98.4°.

Feverishness varies from 99° to 100°.

Slight fever varies from 100° to 102°.

Moderate fever varies from 102° to 103°.

High fever varies from 103° to 105° (imminent danger).

Intense fever varies from 105° to 107° (fatal issue).

The normal temperature of the body in adults is highest on awakening in the morning and lowest at midnight.

It is from 1° to 2° higher in children than in adults, and also lower in the evening than in the morning.

One degree rise in temperature corresponds with an increase of ten beats of the pulse.

A patient who was well yesterday, but has a temperature to-day of 104°, indicates ague or ephemeral fever. If 106° it is some form of malarial fever, but *not typhoid.*

If on the first day the temperature rises to 105°–106°, the fever is neither typhus nor typhoid.

In pneumonia if 101.7°, there is no exudation present; but if 104°–106°, there is exudation and the attack is severe. Should there be consolidation at the *apex* of either or both lungs, *delirium* will surely be present.

In measles, if the temperature is high when the *eruption has faded*, there are complications.

In typhoid fever, when on any *evening* the temperature does not exceed 103.5°, the case is mild. In the third week, if 104° morning and 105° evening, *there is danger.*

In acute rheumatism, 104° forebodes danger or some complication, as pericardial inflammation.

In jaundice of a mild form, if the temperature *rises*, it indicates a pernicious change.

In puerperal females, increase of temperature shows *pelvic* inflammation.

In tuberculosis, an increased temperature shows advance in the disease or that complications are arising.

A fever temperature of 104°–105° in any disease, indicates that the advance of the disease is not checked and that complications may still occur.

In relapsing fever the temperature rises quickly in the first stage, 104°–105° on the second day, then fluctuates till the day before defervescence, when it attains the highest point,—107°–108°,—from which point it sinks rapidly to 98° as the other symptoms subside. On the fourteenth day relapse occurs and the temperature rises to 104° or 105° or more, to descend as rapidly as before, when convalescence begins.

In continued fevers the temperature is generally less high in the morning than in the evening.

In typhus fever the temperature falls towards night.

Stability of temperature from morning to evening is a good sign.

If a high temperature remains fixed or rises from evening to morning the patient is getting worse, but when it falls from evening to morning it is a sign of improvement.

Convalescence is established when the normal temperature, 98.4°, is maintained throughout the day and night.

Cancer lowers the temperature, as also diabetes mellitus and injury of the spinal cord; but cancer of the *stomach* is attended with fever in the latter stages, and also in hepatic cancer when the peritoneum is involved.

Never give quinia with a dry hot skin, or opium with a contracted pupil.

THE TREATMENT OF MIGRAINE.—Dr. E. J. Overend (*Pacific Med. Journal*) discusses this much-vexed question. Being a sufferer himself, he made a long series of experiments, going over the drugs usually recommended. His conclusion is that caffeine is not only the best agent, but that its action is as specific as that of quinine in malaria. Like that drug, its best effects are seen in preventing the attacks. These attacks can usually be anticipated. He gives two to five grains of caffeine every hour for this purpose. He warns against the various compounds, effervescing preparations, etc., containing the drug, as utterly unreliable and often irrational. Caffeine, pure and simple, used as above, he urges as a true specific for sick headache.—*Indiana Med. Journal.*

THE EMPRESS OF JAPAN.—In a year she has contributed $7,500 out of her "pin money" to assist the Tokio Female Hospital in its good work.

Bibliography.

REPORT OF THE HEALTH DEPARTMENT OF THE CITY OF CINCINNATI.

The annual report of Dr. Byron Stanton, Health Officer of this city, for the year ending December 31, 1888, is before us. It is a neat, handsome volume of 132 pages, and contains a world of information in regard to what has been done during the past year by the Health Department. Of the deaths reported there were 5,994; 496 less than occurred in the preceding year, and 49 less than the average of the preceding five years. On an estimated population of 325,000, this shows a death-rate of 18.44 per 1,000, a decrease of 1.53 from the death-rate of 1887. The most marked decline was in the class of zymotic diseases, there having been but 1,255 deaths in 1888, against 1,613 in 1887. Typhoid fever shows 203 deaths, a decline of 200 from the preceding year. Diarrhœa carried off 476 persons, or 7.94 per cent. of the total mortality; this is a decrease of 59 from 1887, but an increase of 35 over the average of the preceding five years. Cholera infantum was the cause of 166 deaths, against 214 in the preceding year. Diphtheria has appeared as a cause of death less frequently than in the year of 1885; 451 cases were reported, of which 151 proved fatal; in 1887 the cases numbered 583, with a mortality of 183. Croup has claimed 114 deaths, an increase of 25 over the year before. In this connection let us point out the significant fact that the filthiest and less sewered parts of the city suffered the most. Comment is unnecessary! Measles caused but 8 deaths, against 73 in 1887. There were 190 cases of scarlet fever, a decline of 251 cases from the preceding year. Of whooping-cough, 110 cases, with 43 deaths.

Passing from the zymotic to the constitutional diseases, we find that consumption caused 748 deaths, 71 less than in 1887, and cancer 154, an increase of 17 over the previous year. Pneumonia claimed 446 victims, and bronchitis 267.

The deaths from violence were 285—the largest mortality from this class ever reported in this city. The average for the previous five years was 250. Deaths from suicide numbered 52, 19 more than in 1887, and ten more than the average of the preceding five years. Falls caused death in 36 cases, railroad accidents and drowning each caused 34 deaths, and burns and scalds 29. Of the 9 homicidal deaths, 7 were by shooting and 2 by cutting. Shooting was the method chosen by 23 of the suicides, poison by 10, hanging by 8, cutting throat by 5, drowning by 4, jumping from the window by 1, and suffocation by 1. During the past twelve years no less than 501 persons have committed suicide in our city. The figures show a steady increase, beginning with 37 in 1877 and running up to 52 in 1888. The nativity of the suicides was as follows: Born in the United States, 186; in Germany, 252; in Ireland, 22; in England, 11; in other countries, 15; not stated, 15. A close inspection of these figures shows that of this great number weary of life the majority were foreign born. An analysis of these figures and of the motives impelling those unfortunates to that terrible step is extremely hard to get at. The mere fact that one-half of them were born in Germany is something to set us all to thinking. There is something about the German character and disposition that impels them to take on and constantly entertain the most sombre views of life and duty, destiny and eternity, heaven and hell!

Of the total number of those who died in Cincinnati during the past year, 24.12 per cent. were under one year, 6.52 per cent. between one and two years, 7.37 per cent. from two to five years, and 3.78 per cent. from five to ten years; 41.79 per cent. were under ten years of age.

Diseases of the nervous system, diarrhœa, convulsions, croup, pneumonia, meningitis, and affections of the respiratory organs carried off almost all of the children. In youth and early manhood typhoid fever, consumption, and pneumonia were the most dreaded foes. Middle age has most to fear from cancer, consumption, heart disease, typhoid fever, and pneumonia. After sixty years, "old age" (whatever that may mean), pneumonia, disease of the heart, cancer, bronchitis, and consumption. Cancer is increasing in frequency beyond the increase of the population. Stick a pin right there and look around you! There is another terrible disease that is pervading every root and fiber of our social system, and that is *insanity!* These two terrible disorders are enough to make every thinking man shudder when he looks down the long vista of the years to come!

The births reported were 7,569, an increase over the previous year of 484. The number of white births reported was 7,436, of black 133. The excess of male births over female was 195—a proportion of 105 males to 100 females.

There were 420 still-births reported, 16 less than in 1887.

The number of marriage licenses issued by the Probate Court was 3,288, yet the marriages reported were only 2,226. Comment is unnecessary. Perhaps some of the boys and girls got out of the notion of sailing out upon the *squally* sea of matrimony before the preacher was called upon to tie the knot! Who knows?

The work reported to have been performed in the sanitary department, under the very able supervision of Mr. Patrick O'Connell, was simply immense. The number of nuisances reported and abated was 35,680, exceeding those abated in 1887 by 1,258.

Dr. Theodore Bange comes to the front as one of the best Milk Inspectors Cincinnati has ever had. His prompt attention to his duties has greatly improved the quality of the milk now sold to our people.

Mr. Ferd. Meyer reports that during the year he inspected 581,601 hogs, 149,401 cattle, 312,570 sheep, and 32,221 calves, being a total of 1,075,883 head of stock. Of this number he condemned as unfit for use of live stock and dead stock a large percentage, the total value of which was $35,154.15.

Mr. George Bogen, Superintendent of Markets, reports that the total number of venders in our markets is 414,483, and that the number of licenses issued by the Comptroller was 817, against 792 for 1887 and 719 for 1886.

Capt. James Beggs, the very able and accomplished clerk of the Health Department, embodies quite a number of neat and comprehensive tables in the volume of the Health Officer's report, setting forth the work done among the out-door poor for the year 1888. During that time 11,651 patients were treated, and 20,529 visits made by the ward physicians. There were 153 deaths. The number of new patients received was 3,908, and the number discharged 3,641. The cost of the drugs was $3,570.88; number of prescriptions 12,392, at an average cost of 28¾ cts.; the average cost per week of each patient was 30½ cts. The pay-roll of the ward physicians is $625 per month, amounting to $7,500 for the entire year. The grand total of the expenditures of the Health Department for the year was $54,775.48. Perhaps some of the young *sawbones* who are spending years of time and thousands of dollars in the study of medicine had better take heed to some of Capt. Begg's figures on the munificent salary received by a ward doctor. Take that Third Ward for an example. During the year of 1888 the lofty and aristocratic *rooster* who presides over the destinies of the poor in that savory locality treated 1,214 patients (10 of whom died) and made 2,249 visits for the magnificent sum of $300. If he don't take to the flowing bowl it will be a wonder! Many and many a man has been ruined by prosperity and too much money.

THE ANNUAL REPORT OF THE SURGEON-GENERAL OF THE U. S. ARMY. For the Year ending June 30, 1888.

From this report we learn that the total strength of the army is 26,365, of which number 23,737 are white and 2,428 are colored. The number of admissions to the sick report for all causes was 29,729, or a rate of 1,246 per 1,000, against a rate of 1,263 for 1886, and 1,672 for the previous decade. These figures show that there has been some improvement in the health of the troops. The engineer gave the highest ratio of admissions, and then came the other branches of the service in the following order: ordnance, artillery, cavalry, and infantry.

Of the different nationalities serving under our flag and wearing our uniform, the Scotch seem most liable to drift toward the doctor and the hospital, and then come the French, English, American-born (white), American-born (colored), Irish, Swiss, Canadian, Austrian, Scandinavian, Danish, and German. The native-born American makes the best and the Irish the poorest soldier. The region of the central timbered plains and hills shows the highest admission-rate for all causes, and the Pacific Coast the lowest.

The loss on account of sickness and accidents and disabilities of all kinds averaged 15.5 days for each man in the army, showing a change for the worse when compared with the records of previous years. The average for the colored troops was 16.8 days, and for the white 15.3. In respect for the average sick-time for each man, our army compares unfavorably with most foreign armies, with the exception of the British. The average loss of time for each soldier in the various armies, according to the latest reports, is as follows: Great Britain, 21 days; United States, 15.5; France, 14; Prussia, 13; Italy, 12; Austria, 11; Belgium, 11. The average duration of treatment for cases occurring among the colored troops was 12.04 days, and for the white 12.45. The deaths from all causes during the year numbered 214; of these, 65 were due to injury and 149 to disease. The death-rate of the colored troops (10.71 per 1,000), was higher than that of the white (7.85). Among men of different ages the ratio of deaths was highest for those from sixteen to twenty, aud lowest from twenty-five to thirty.

The total number of discharges for disability during the year was 714; of these, 67 were from injury and 648 from disease. The colored troops gave a discharge rate considerably higher than that of the white.

Taking the degree of constant impairment of force as the measure, and including in the calculation all causes of disability, it appears that the recruiting depot at Jefferson Barracks, Mo., continues to enjoy the unenviable distinction of being the unhealthiest post of the army. With a mean strength of 669 men, its ratio of constant non-effectiveness is 96.79 per 1,000, or more than double the average of the army, and 16 per 1,000 higher than the corresponding rate of any other station. Malarial fevers, venereal affections and diarrhœal diseases are the leading causes of impairment of force.

Taking a hasty glance at the whole country, we find that, according to Surgeon-General Moore's report, rheumatism, intermittent fever, syphilis, and typhoid fever gave the most of the trouble on the Atlantic Coast; rheumatism, catarrh, and bronchitis in the region of the Lakes; malaria, vaccina, diarrhœa, and rheumatism in the central timbered plains and hills; syphilis, paludal fevers, conjunctivitis, and pulmonary phthisis in the region of the Gulf; pneumonia, pulmonary phthisis, typhoid fever, cancer, and catarrh in the prairie lands and great plains; articular rheumatism, diarrhœa, cholera morbus, pneumonia, pleuritis, and bronchitis in the Rocky Mountain region; and malarial fevers, pneumonia, catarrh and common colds, and articular rheumatism on the Pacific Coast.

There were 164 surgical operations reported by medical officers; 81 of these were necessitated by injuries and 83 by various surgical diseases. In the most of them antiseptics were used.

In strength, health and general effectiveness the colored troops compare fairly well with the white; in one thing they surpass the whites, and that is, they stand up better under the constant practice of dram-drinking. That brings us at once to speak of the wisdom(?) of passing a law to prevent the sale of intoxicating liquors on Government reservations. From most of the western, southern and northwestern posts come reports that since the order prohibiting the sale of liquors by post-traders, rum-shops of the lowest grade have sprung up like toadstools in convenient proximity to every reservation, where not only are the most villainous liquors sold, but cards and prostitutes as additional allurements. "The result is only too perceptible; the men are fleeced by professional gamblers, crazed by liquors, become involved in drunken brawls or fall into the meshes of the women, and each pay-day produces its crop of battered faces, empty pockets and tainted constitutions, not to speak of breaches of discipline and desertions, the result of hopeless indebtedness. Besides this supply of liquor, there is another source more convenient to the soldier; it is smuggled directly into the post and into the quarters. On the whole, much more liquor is consumed now than when its sale by the post-traders was authorized, the very prohibition offering an additional temptation to procure it!"

The work of the Surgeon-General's office in connection with the record and pension office has been great. During the year information was supplied in the cases of 47,834 veteran soldiers. The amount of the work and research embraced in these figures can only be appreciated by one who has been in this kind of labor.

A LABORATORY GUIDE IN URINALYSIS AND TOXICOLOGY.

By R. A. WITTHAUS, A.M., M.D. Second edition. New York: Wm. Wood & Co.

Books of this character are always prepared by teachers to suit their own classes, and how far they may be available for other teachers depends upon their own ideas of instruction, or the necessities of the particular classes which they have in charge. The book before us contains a well-selected series of experiments relating to the subjects of which it treats, sufficiently numerous to thoroughly illustrate the facts they are intended to teach, and expressed in language so clear that no mistakes should be made by a student working through the book. The experiments relating to the inorganic constituents of urine seem to be lacking somewhat when they fail to give the convenient approximate quantitative methods of Hoffmann and Ultzmann. Further on in the book the exact quantitative methods are given, but these are entirely beyond the necessities of the practicing physician, as well as too troublesome for his use. On the whole, the book is admirable, and well adapted for its purpose.

THE ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES.

Edited by CHARLES E. SAJOUS. Philadelphia: F. A. Davis, Publisher.

This series of five volumes is a very excellent summary of the progress of medicine during the past year. There is a very apparent improvement over the volumes of the previous years, and indicates that the editor is being educated for the work he has had the courage to assume.

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Cincinnati College of Pharmacy,

(Department of Pharmacy, University of Cincinnati.)

On behalf of the Jury appointed by the Commissioners of the Centennial Exposition for Class XIII, Group 97, we have examined the different specimens of mineral waters, and have ascertained by chemical analysis that the various samples taken from the exhibit of

Dr. ENNO SANDER, St. Louis, Mo.

INCLUDING

Apollinaris, Single and Tenfold Carlsbad Water, Ems-Krœnchen,

SELTERS AND VICHY,

Were in close accord with the formulas from which the waters are stated to have been manufactured.

In consequence of this result the Jury have awarded to the exhibit of Dr. Enno Sander a

SILVER MEDAL, HIGHEST AWARD FOR MERIT

GRANTED IN GROUP 97.

T. H. NORTON,
H. W. WELD,
Professors in the Department of Chemistry, Cincinnati College of Pharmacy.

CINCINNATI, OCTOBER, 1888.

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Made wholly from cow's milk with the exception that the fat of the milk is partially replaced by cocoa butter. Cocoa butter is identical with milk fat in food value and digestibility, being deficient only in the principle which causes rancidity. The milk in *Lacto-Preparata* is treated with Extract of Pancreas at a temperature of 105 degrees, a sufficient length of time to render twenty-five per cent. of the casein soluble, and partially prepare the fat for assimilation. In this process the remaining portion of the casein not peptonized, is acted upon by the pancreatic ferment in such a manner as to destroy its tough, tenacious character, so that it will coagulate in light and flocculent curds, like the casein in human milk.

Composition:	ALBUMINOIDS,	19	Parts.
	MILK SUGAR,	64	"
	FAT,	10	"
	MINERAL MATTER,	3	"
	CHLORIDE of SODIUM added,	½	"
	PHOSPHATES of LIME added,	½	"
	MOISTURE,	3	"

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NEW SERIES VOL. XXIII. Cincinnati, September 28, 1889. *WHOLE VOLUME LXII.*

Original Articles.

A CONTRIBUTION TO THE HISTOLOGY OF THE CEREBRUM.

By PROF. C. L. HERRICK,
University of Cincinnati.

The striking results of recent investigations upon the physiology of various parts of the hemispheres, conflicting as they are, have given a fresh impetus to the study of the minute structure of the cortex. The interest manifested upon the subject is so wide-spread that the following notes are offered in advance of the paper in the preparation of which they were made.

In spite of the astonishing advance made during the last ten years in the knowledge of the anatomy of the brain, there remain a large number of questions of primary importance upon which nothing is known, or the testimony is so contradictory as to have value only as a stimulant to further investigation. Indeed, the most important question of all in this connection seems to have fared the worst.

The primary and permanent gain of experimental work has been the demonstration of the topographical distinctness of various motor and sensory areas in the cortex. The latest critical studies of Luciani and Seppilli leave no doubt that, however difficult or impossible it may be to sharply outline such areas, there are distinct parts of the cortex chiefly occupied with special senses and special groups of muscles.

If the occipital lobe be chiefly concerned with the function of sight and its intellectual concomitants, and the region about the crucial sulcus more particularly with the origin of voluntary motions of extremities, what more natural than to expect these areas to afford quite different histological elements to the microscope? Bevan Lewis has demonstrated that such a difference actually exists, and with masterly skill has pointed out and illustrated the characters of the motor areas. His figures of the cortex of the limbic lobe and region of the crucial sulcus are certainly beautiful, and amply reward the patience of the author. The last papers of this writer which reach us do not, however, indicate that the distinction between motor and sensory areas bears any correspondence to the facts of physiology. That is, although the presence of large ganglionic cells in motor areas and their absence elsewhere is important, it does not afford a clear idea of the direction which the stimuli pursue in being transformed from sensory to motor phases. To say the motor areas possess a five-layered cortex and the sensory a six-layered is an advance, inasmuch as we are able to distinguish microscopically the two sorts of areas and concentrate attention more closely upon the intimate structure; yet we cannot discover why a five-layered mass of cells serves the motor function better than a six-laminated cortical area; neither do we see any clue to the problem as to the way in which these areas affect each other. Moreover, the naming and numbering of cortical layers is necessarily arbitrary, and along the distinct boundaries it is impossible to sharply distinguish motor from sensory cell-chains.

Luys has positively announced a very different basis for distinguishing the sensory and motor cells. Making no topographical distinctions, he simply declares the smaller superficial cells of the cortex sensory and the deeper ganglion cells (including the "giant cells") motor in function, somehow deriving the fibers passing to the former from the thalamus, and sending the descending processes of the latter to the corpus striatum. This has seemed to impress most critics as somewhat mythical, and really the difficulties in the way of demonstrating such minute connections seem unlikely to yield to methods like those employed by our author.

The present writer, in the midst of a series of investigations, undertaken in connection with Prof. W. G. Tight, of Denison University, upon the anatomy of the brain of rodents and lower mammals generally, has been led to believe that the attentive study of these simpler brains affords a solution of this most important problem of cerebral histology. The work is but begun, yet its results upon this point seem worthy of a preliminary abstract.

The subject chosen was the groundhog, *Arctomys monax*, while the brains of rabbits, opossums, and raccoons served for comparison. The functions of the cortex were investigated by electrical stimulation and extirpation. In this way the motor centers for the fore and hind legs, the muscles of the face and neck, and the sensory areas were accurately diagramed. A method used by us for the first time may be incidentally mentioned as worthy of more careful employment. As the electrodes were removed from the brain a small pasteboard or wooden peg bearing a number was inserted, and the reaction produced at this point was carefully recorded upon a diagram of the surface of the hemisphere with the corresponding number attached. After the removal of the brain these tags served to check the accuracy of the diagram, and a careful drawing was made including the areas experimented on.

The brains were placed in chrom-acetic solution twenty-four hours and then in alcohol, and continuous series of sections in various directions mounted in balsam. Several hundred such sections were prepared and studied by the method of geometric reconstruction from camera drawings and measurements.

To briefly summarize the facts elicited upon this point, it may first be stated that over the entire recognized motor area and along the limbic lobe or region along the median fissure a well-defined type of structure can be observed, while the remainder of the cortex contains an entirely different set of cells. In the motor area the cortex resembles that described by Bevan Lewis in the sheep and pig, though the minor subdivisions are less distinct. The outer neuroglia layer is followed by a zone of small pyramidal cells with a strong axial process derived from the superficial layer and fine anastamosing fibrils from the lower and blunt extremity. Below this is an indistinct layer of fusiform cells, which connect below with the "giant" or ganglion cells, which are not only more than twice as large as the other members of the series, but are nested or clustered and have peculiarities of form readily distinguishing them. The axial process is strong and may be traced upward a considerable distance. The numerous inferior processes of these giant cells connect with multipolar, parametric, or irregular cells lying upon or imbedded in the white fiber zone. Occasional anastamosing of cells of the same level can be detected, but the connection seems generally to be between cells of different orders.

Now directing our attention to the cortex in portions known to lie within the sensory area, we find an entirely different type of cell arrangement. In general, the sensory, or preferably (not to prejudice their function) centripetal, cells receive the stain less readily and are only visible in good preparations; but distinctions based on receptivity to stain are untrustworthy. The cells of the upper zone lying next the neuroglia layer are nearly of the same size as those of the corresponding zone of motor areas, but are more nearly globular, possess a larger nucleus, and, in particular, *receive their axillary process from below*. Cells of this sort occupy the entire thickness of the cortex to the depth of the giant cells, the only variation observed being an increase of size downward. Corresponding to the giant cells of motor areas are large pyramidal cells, each with a slender downward projection terminating in an axillary process, while the *upper* blunt extremity gives off numbers of fine fibrils. Thus the contrast is complete, the course of the chains of cells being completely reversed, and we seem warranted in assuming that there is a similar variation in the direction of the stimuli traversing these chains.

We hasten to explain that this variety of cell which is termed centripetal is by no means limited to circumscribed areas exclusive of all centrifugal or motor chains. On the contrary, there are numerous centrifugal cells scattered in groups within the area chiefly affected by the centripetal variety, and, *per contra*, the centripetal variety is sparsely scattered among the undoubted centrifugal elements of the motor area. Nevertheless, in those areas ascertained by electrical stimulation and extirpation to be sensory the centripetal variety greatly preponderates, and in the optic center quite excludes the other, while in the motor centers the other type occupies the prominent *rôle*. To carefully test this point sections taken through an isolated motor area surrounded by a zone indifferent to the electrode was sought. Such an opportunity is afforded by the center for the sphincters of the face, which can easily be located in rodents. This spot lies well back of the center for the hind leg and near the median line. The existence of a sensory center for the *orbicularis palpebrarum* was postulated by Munk as the result of extirpation. This area lies in what Munk would call the "independent sensory region of the eye," not seeming to recognize that there existed a true motor area for the sphincter. This latter fact appears demonstrated by our very definite results. The zone is very small and accurately defined, but its stimulation, even with a feeble current, induced violent and long-continued contraction, not only of the *orb. palpebrarum*, but apparently of *orb. oris*. (Cf. Munk: "Ueber die Functionen der Grosshirnrinde," Vierte Mittheilung, p. 64.) Transverse sections passing through this center bring out the distinction between the motor and sensory areas. In that region shown to govern the sphincter the centrifugal cells are abundant, but laterally beyond its limits the centripetal predominate.

Upon the posterior aspect of the occipital lobe motor cells are numerous, as along the limbic lobe. Near the gyrus hippocampus the centripetal type prevails and in the external part of that gyrus, but internally groups of peculiar multipolar cells traverse the cortex in all directions, requiring further study and affording evidence of the extensive disturbance due to the fold producing the ammon's horn.

One familiar with the recent literature of this subject will note that the facts here adduced correspond closely with the conclusions of the most careful experimental observers. Meynert quotes with approval Munk's conclusion "distributing sensory areas over quite the whole of the cortical surface, and therefore terming the region from the occipital lobe to near the frontal margin the 'sensory sphere' of the brain."

It is strange, however, that such distinctions as are here claimed should not have been previously noted, and this naturally will cast doubt upon these statements, which, however, can be amply supported by camera drawings or actual sections. The greater avidity with which the centrifugal cells take the stain explains why imperfect preparations demonstrate one class only, and the wide distribution of the motor type may have prevented any serious search for another structural modification.

It may be left for subsequent examination to decide what becomes of Meynert's theory that "in order to explain volition it is only necessary to postulate sensations of innervation, and tactile and pressure sensations are thought to be a means of regulating the excitation of sensations of innervation." (Meynert: "Psychiatry," p. 145.) But if we can demonstrate in the cortex afferent and efferent projection systems, and distinguish the cells occupied with psycho-motor and psycho-sensory processes, certainly a great step is taken toward an intelligible construction of cerebral mechanics.

STRYCHNIA IN ALCOHOLISM. — The good results reported from various quarters as attending the use of strychnia in alcoholism caused Dr. Jaroshewsky (*Medis. Obozr.*, *Deutsch. Med. Zeit.*) to undertake a serious of experimental researches to determine the antagonism of strychnia and alcohol, if there be any. His experiments, carried out on dogs, led him to the following conclusions:

1. That strychnia undoubtedly neutralizes the toxic and narcotic effects of alcohol.

2. If the two be taken together, much larger quantities of alcohol may be ingested, and this, too, without causing the usual organic changes which follow when alcohol is taken alone.

3. There are certain bounds, however, beyond which strychnia itself is injurious to the organism.

4. The use of strychnia should be a therapeutic measure in every form of alcoholism.

5. Strychnia may be looked on as a powerful prophylactic against alcohol. — *Weekly Med. Review*.

Addresses.

PRESIDENT'S ADDRESS.

To the American Association of Obstetricians and Gynecologists, at the Second Annual Meeting, held in Cincinnati, O., September 17, 18 and 19, 1889.

By WM. H. TAYLOR, M.D., Ph.D., Cincinnati.

Gentlemen :

When this Association assembled one year ago, those who had been active in its organization naturally felt much solicitude as to the result of their project; by some, whose opinions were entitled to much respect, the propriety of such organization was questioned; to others the existence of quantity and quality of material of which to form the society was problematical, and it is violating no secret to say that in some minds there was a decided feeling of opposition awakened by the effort; very reasonably, therefore, the untried experiment seemed to have elements of much uncertainty in it. Need I say anything to-day of the result of the experiment? To those who attended that meeting there must ever arise a feeling of pleasure in recalling the cordial friendships there formed, and of pride and satisfaction in recounting the scientific fruit produced; to those who did not attend, we confidently refer to our published "Transactions" as evidence of what was accomplished.

In convening this year, no such depressing feelings prevail, but having won the approval of the profession, and assured of our success, my greeting to you can only be one of congratulation and confidence; and, while thus reviewing our initial meeting, I am glad of the opportunity to express our thanks to the journals of the country, and to the reviewers of our work, for their courtesy and favorable comments.

So much could easily be written, but as I have sought for a topic upon which to speak to you I have been more and more impressed with the difficulty of the task. Were this society composed of representatives of all the different branches of our profession, it might be an easy thing for a speaker to impart to some of them some valuable information from his experience in his own special line of work; but to an assemblage of men who have travelled the same road, who have read the same literature, who have studied the same morbid processes, and, to a certain degree, have all done similar work, it becomes a matter of great difficulty to speak with any hope of giving you any new thoughts or valuable suggestions.

In looking at the last published report of one of the most eminent societies of this kind, I find the President's address composed of three features: Congratulations on the financial status of the society—that I can reproduce without plagiarism; a review of work done by its members—to you no such recapitulation is needful; and occupying large space are obituary notices of members deceased during the year—proper and commendable as it is to speak kindly of those who are gone, it is a source of much greater satisfaction that no member of this association has made himself a fit subject for such kindly comment. And so the address before that society affords me no aid in speaking to you.

A recent writer has said: "There are two classes of changes and improvements in medical progress: the one, the fashions of theory and practice, which, leaving something of gain behind them, are eventually lost sight of on the advent of something newer or more taking; in the other class are the great advances in Medical Science, which remain forever as part of the great inheritance we have received from our predecessors, and which are the essential landmarks of our progress."

To these I venture to add those suggestions which may fail to accomplish that for which they were originally designed, but which throw a side light that illumines some dark corner, and thereby make plain some hitherto unknown region in the world of Science. And yet another very important element of progress is the elimination of the untrue, and assuredly he who reveals an error is only less a benefactor than he who discovers a truth.

Viewed from these standpoints of criticism, while a survey of the progress in our field of work the past year may offer no one remarkable feature, yet it certainly affords material evidence of advance in the right direction, and I think all must recognize that one marked and gratifying characteristic of the year has been the successful effort for greater accuracy in diagnosis and for determining the indications for operative procedure, and a glance at the status of particular cases shows very satisfactory change. The condemnation of laparotomy, so common a few months ago, is now much less frequent, experience having established more definitely the proper grounds for operation; an enlightened conservatism is coming to prevail, and, on the other hand, more accuracy in diagnosis being acquired, fuller justification for the procedure is demonstrated.

The question of extirpation of the uterus is less prominent, because, I believe, of more unanimity of approval, and with the success indicated by Sir Spencer Wells in his recent lecture, and especially with the statistics of Munchmeyer of 110 extirpations with a mortality of 4.5 per cent., the operation must be marked for approval, and the terse statement of Sir Spencer Wells, "The best means to prevent return is to operate early," shall become an aphorism for our guidance. And yet, while advocating such treatment, I am not forgetful of the fact that the prime element, ability of early diagnosis, as all know and as Landau has recently shown, is still a desideratum.

No longer can Alexander's operation be classed among questionable resources of our art. Accepting it as useful and safe, we only need make definite the cases to which it is appropriate.

Abdominal fixation of the retroflexed uterus has received considerable attention, and it is interesting to see the unanimity of the verdict regarding it; American and European writers agreeing that it must hold place only as adjuvant to other operations. Ch. Leopold, however, adds to the conditions for its performance as given by Zerner, Bode and others, this further: "For retro-deviations of the non-adherent uterus if the sufferings of the patient depend altogether upon this condition and all other means prove unavailing." I opine that we should consider this a good case for shortening the round ligaments.

Max Runge has just called attention to a fact worthy of most serious consideration, viz., that the operation which at present is attended by the heaviest mortality in all gynecological operations is that for the removal of tumors which are the least injurious to the patient. He says a high mortality for ovariotomy is 10 per cent., for extirpation of the uterus for carcinoma 11 per cent., while that for myomata is 24 per cent. Of course, we shall not remain satisfied with such results. But do not the two facts of low death-rate from the disease and high death-rate from the operation suggest the query as to the propriety of some other method of treatment?

Very likely your thoughts at once revert to electricity, but I believe the verdict of a year's experience will not sustain the strong assertions made in its behalf, yet the testimony in its favor by men of such eminence as Keith and Aveling must prompt us to give it place as a therapeutic agent. Just in the class of cases now under consideration does it offer most advantage, and I think a recent statement by C. E. Underhill, President of the Edinburgh Obstetrical Society, will fairly mark its place; he says: "I believe we shall find it a valuable and efficient aid in our work, and in cases mostly where medical and so-called expectant treatment is of no avail, and where the relief offered by surgery promises to be purchased at too hazardous a rate." But it was not to advocate electricity that I introduced this subject; it was to suggest, in view of the ultimate favorable issue of these cases, the propriety of restricting to a great degree the resort to surgical measures.

The brilliance of operative procedure naturally obscures other work, and the apparently greater gravity of a case justifying an important operation diverts attention from suffering less severe, but equally needful of treatment; perhaps because of these reasons, as well as because of poor success in treatment, uterine displacements have claimed comparatively little attention of late. But the recent appearance of Schultze's views must serve to awaken interest and advance our knowledge of this class of ailments, while Hermann's elucidation of the relation of systemic causes to local effects must give valuable aid in treating some of them.

As is not rarely the case, subjects which may have seemed satisfactorily settled, and therefore requiring little further consideration, are revived and become the theme of renewed disputations. An instance of such polemic resuscitation is the active discussion now going on with regard to the phenomena and conduct of the third stage of labor.

We all know that controversy on this topic has continued in Germany for several years, with probably little advantage either to the combatants or to science; but certainly attention is called earnestly to the subject by Dührssen's statement a few weeks since that "in Prussia a woman dies every day from post-partum hemorrhage." Now, if we recall the fact that such fatality can occur only among a limited portion of our population, the relative mortality would seem very large; allowing the period during which such accident could occur to be from fifteen to fifty years, we should have one death from hemorrhage after delivery to less than 200 from all causes among women in the period mentioned. How near the truth this may be in this country we have no means of knowing, yet I fear it is not a great exaggeration. The great confidence which we have had in the common method of dealing with the placenta might lead us to the belief that we should be exempt from such disaster, but just now our idols are being broken, and a man so highly esteemed as Dr. Berry Hart says: "I consider Credé's the most dangerous plan possible for the separation of the placenta." And for the treatment of these most dangerous accidents of the parturient woman Dührssen suggests plugging of the uterine cavity and the vagina.

With these facts and these statements so much at variance with generally accepted opinions, certainly it is the part of wisdom carefully to survey the ground upon which our confidence is built.

The very satisfactory results recently obtained in Cæsarean section must fully establish it now not as an operation which *may* be performed occasionally, but as one which *must* be performed if the obstetrician would escape censure. While this proposition is laid down as beyond discussion, the method is still a proper subject for debate.

I think the American profession had almost unanimously arrived at the conviction that the Porro method was not to be chosen for the cases likely to be encountered in this country, but the recently published statistics of R. P. Harris show such favorable results for this operation (*British Medical Journal*, March 30, 1889, for Porro 9 deaths in last 50 operations, and 12 children lost in 81 operations; *ibid*, April 13, last four years Porro mortality 19 per cent., and the Sänger 26+ per cent.), that it certainly makes a strong claim for consideration; and while the two methods are not equally adapted to all cases, we should seek earnestly to differentiate the conditions to which each operation is respectively adapted.

The subjects of ectopic pregnancy, pelvic suppuration and craniotomy have occupied such large space in the literature of the past year that it would be superfluous for me to attempt to consider them, and I am sure you will cheerfully excuse me for such abbreviation of my remarks.

A review of the progress in our branch of medicine the past decade is a source of astonishment and a cause for congratulation, for no department can show such great additions to life and comfort; but I need only make the assertion to elicit your assent, that there yet remains very much land to be possessed. With the intelligent restlessness that characterizes the educated mind, we must press forward, and no prophetic power is required to predict that great progress will be made. The recent advances in all departments of science, and the wonderful practical application of newly acquired facts, disarm incredulity, and we dare place no limit upon the possible acquisitions of the near future. The Utopias of to-day may be the familiar dwelling-places of to-morrow, and actuated by the noble sentiment which so characterizes our profession of seeking the truth for the truth's sake, we may be sure of grand additions to our knowledge and skill, and I can utter no better benediction than the hope that this Association may bear its full share in making these acquisitions.

COCAINE TABLETS.—These tablets are now largely used by careful physicians for extemporaneous preparation of any desired strength cocaine solution. The rapid deterioration of cocaine solutions make these tablets a necessity. To make a two per cent. solution of cocaine: In one fluidrachm of water dissolve one cocaine tablet 1⅛ grain. To make a four per cent. solution of cocaine: In one fluiddrachm of water dissolve one cocaine tablet 2¼ grains. To make a ten per cent. solution of cocaine: In one fluiddrachm of water dissolve five cocaine tablets 1⅛ grain; or dissolve two 2¼ grain and one 1⅛ grain tablets in one fluiddrachm of water. Parke, Davis & Co. guarantee the purity and anæsthetic efficiency of their cocaine product and will send samples of their cocaine tablets to physicians if desired.

Society Reports.

THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

OFFICIAL REPORT.

Second Annual Meeting, held at Burnet House, September 17, 18 *and* 19, 1889.

[Reported by W. H. Wenning, M.D., Assistant Secretary.]

FIRST DAY, SEPTEMBER 17.

Morning Session.

The Association was called to order at ten o'clock by the President, Dr. W. H. Taylor, of Cincinnati; he introduced Dr. C. G. Comegys, of this city, who then welcomed in a neat little speech the members of the Association to this city.

This was responded to by Vice-President Dr. E. E. Montgomery, of Philadelphia. He said that an organization, which was born in the City of the Lakes, held its first meeting at the National Capital, was about to pass its second summer in the Queen of the West. He hoped that it would be imbued with that spirit of progress and statesmanship which had hitherto characterized it, and that the papers which were to be presented at this meeting would be of a still higher order than before, and that the transactions would thus continue to improve until they would be read by all men interested in the departments of medicine to which this Association devoted itself. He accepted with pleasure the kind offerings of welcome by the representative of this city.

Dr. Vander Veer, of Albany, N. Y., then reported a case of

Congenital Sinus of the Urachus: Abdominal Incision; Recovery; with Remarks.

A woman had a discharge of sebaceous matter from the umbilicus, for which she had been treated for ten years by very thorough injections, etc. All treatment, however, failed until the sinus was opened up by a deep and long incision, the cavity curetted and the parts brought together by sutures. She recovered entirely, and expressed herself now as being well. The essayist alluded to the rarity of these cases, very few instances of congenital sinus of the urachus having been reported.

DISCUSSION.

Dr. Price, of Philadelphia, remembered having seen one similar case, although it was not one of congenital sinus of the urachus. The cystic form of this disease is more common. In one of his cases the trouble developed after childbirth ten years ago. During these ten years she suffered from some superficial abdominal trouble, in the meantime passing through several hospitals. Drainage was made by which much pus was discharged. He made a long incision down to the pubes, denuding all diseased structure and leaving a sinus passing to the left. Later a second operation was made, the incision being deeper, through which the opening was irrigated down to the pelvic walls. The second operation was followed by a perfect cure. The patient conceived shortly after, although for five years previously she had no children. She has, however, other pelvic disease, associated with some pain in the left ovary.

Dr. McMurtry, of Louisville, Ky., next reported

A Case of Extra-Uterine Pregnancy; Operation and Recovery.

A woman had her first child in 1888. In March, 1889, her catamenia reappeared, but were suppressed again in June. On the 26th of that month she had a very violent paroxysmal pain, attended with bloody discharge. Two days later she had another violent pain, which was repeated in a week. She then was free until the 27th of July, when she had another violent attack. The essayist saw her for the first time July 29. The patient was very pale and emaciated, features pinched and abdomen distended. The pelvis was filled with blood and the uterus pushed to the left side. The operation was made by opening the abdomen and making an incision three inches in length. Large blood-clots were turned out and the fetal ball found situated on the right side of the uterus. The tube was ruptured. The operation lasted thirty-four minutes, and the patient had some nausea and vomiting for the first twenty-four hours, but this disappeared after the administration of small doses of calomel. After this she perfectly recovered. (The specimen was then presented.) The essayist attributed the first attack of the pain to the rupture of the tube and the second to the rupture of the gestation-sac. The fetus was not found, and probably escaped in the turning out of the large blood-clots. The essayist insisted on prompt interference in all these cases, calling attention to the many cases of probable death from this cause attributed to hematoma, idiopathic peritonitis, etc. An operation should be made as soon as a diagnosis is made. He also alluded to the observation of Formad, of Philadelphia, who in his autopsies during a few months found nineteen cases of extra-uterine pregnancies, where death had been attributed to some other cause. In one district in London three operations were made in one week for extra-uterine pregnancy.

DISCUSSION.

DR. JOSEPH PRICE (Philadelphia) regarded no treatment as rational except the surgical treatment. No treatment that will destroy the life of the embryo is correct, because with rare exceptions is it possible to make a diagnosis prior to rupture of the tube. He was opposed to the use of the electric current, first, because it is only exceptional that we can tell if a woman is pregnant at a sufficiently early date to destroy the life of the embryo; and, secondly, because, even if a diagnosis is made, we leave a trouble behind not much better than the impregnation itself. A foreign body leaves a woman in constant jeopardy, hence the removal of the product of conception is the only rational treatment. Even if the diagnosis be made prior to rupture, an operation would be the only rational treatment. With the better understanding of the pathology the treatment becomes also better understood. Formerly operators were at sea how to operate, but now, since it is known that probably all extra-uterine pregnancies are primarily tubal, we know where to look for it. He then related a case supposed to have been an ovarian tumor. When the abdomen was opened it was found to be a broad ligament hæmatocele adhering to the intestine and right side of the abdomen. The uterus was enlarged to the size of three and one-half months' pregnancy. He would not be positive that this was a case, but he believed if she had been operated on a week sooner she could have been saved. She died the day after the operation. He was impressed that we ought to operate in all doubtful cases.

DR. E. E. MONTGOMERY (Philadelphia) commended the promptness of Dr. McMurtry in operating. He regarded operation the only relief for the patient when rupture has occurred. It was true in many cases hemorrhage could be arrested at the time of rupture and the operation deferred till later, but frequently the hemorrhage is active and the patient will die in a few hours if not operated on. The patient bleeds until syncope takes place, then the heart's action is enfeebled, the hemorrhage arrested, only to recur again when the patient is revived by stimulants. Thus a second fatal hemorrhage may occur. In the case reported he was not positive that the rupture of the tubal sac occurred just a month before. The walls were thin and there might have been a partial rupture opening into the broad ligament. This was attended with slight pain, followed by a slight peritonitis; then another partial rupture may have taken place. In an extra-uterine pregnancy of six to eight weeks a complete rupture may take place when the situation becomes serious and frightful hemorrhage results. He could not condemn electricity altogether in the early stages, because it may prevent an operation if it be applied at the first partial rupture. It is not always possible to obtain a consent to operate. Should a patient then be allowed to go untreated? Animals of greater vitality have been killed experimentally by electricity in the fluids in which they were swimming. In a tubo-ovarian pregnancy the placenta may be applied not only to the mouth of the tube but also to a portion of intestine; in such a case hemorrhage may become serious. Electricity may be beneficial, as it decreases the circulation. The vascularity is destroyed and the patient stands a better chance of recovery by a later than a primary operation.

DR. VANDER VEER (Albany) said that in Dr. McMurtry's case there was so complete a train of symptoms that his conclusions were correct; but these cases were not always so clear as to make it possible to save the life of the patient. Last January he received a letter from a physician forty miles away to hold himself ready for an operation in a case of extra-uterine pregnancy. The patient had skipped her menstrual period two weeks. She had profound collapse, but rallied under stimulants. He believed an operation was called for, but the husband opposed it. The speaker was, however, telegraphed to hold himself ready. Later he received another telegram that the patient was better, and she recovered. Three months later he saw the patient; she had a large swelling but was being treated by electricity. Another case, occurring in Pittsfield, Massachusetts, the patient had complained for two months, but had ceased menstruating three months. She consulted a physician January 12, 1889. On the 20th she was taken with collapse and died in two hours. He happened to be the coroner's physician, and suspected she had died from some unnatural cause. The speaker informed him that he believed it to be a case of extra-uterine pregnancy, which was so revealed at the autopsy. A prompt operation might have saved her life.

Dr. Carstens (Detroit) said it was not alone the patient that objected, but frequently also the attending physician. The general practitioner should be educated up to that point to take the view of specialists. He did not doubt that a faradic current sometimes destroyed the ovum, but he always feared that the muscular contraction caused by it might cause a rupture. The only case of the kind he had in his hands was last spring. The patient had been in the hands of quacks several months. The abdomen was large, and the patient so weak that he did not dare to operate when called. He tried stimulants until he thought it was time to operate, because another rupture took place. He cut down in the median line and struck the placenta, which caused great hemorrhage. He then entered the cavity and removed the fetus, filling up the cavity with gauze. The sac was adherent to the intestine in every direction, hence could not be removed and had to be left to slough away. The woman died of shock in six or eight hours.

Dr. Hoffmann (Philadelphia) thought the most damaging blow to electrical treatment was given by Dr. Thomas' report of twenty-eight cases, said to have been cured by electricity. The speaker had studied them carefully and came to the conclusion that they utterly failed to convince him of being cases of extra-uterine pregnancy. Few cases of extra-uterine pregnancy are made out before rupture occurs. Electricians themselves state that operative treatment was alone to be thought of after rupture has taken place. Hence the sole argument in favor of electricity fails. They were probably something else. The advocates of electricity make much ado of abdominal section. The removal of an unruptured sac is easily accomplished. The leaving of a sac is always a dangerous procedure; it may ulcerate and slough in every direction. It is dangerous to leave a mass, greater than the portion removed, to slough out. He thought there would be little difficulty of obtaining consent to an operation if the woman be told the great danger; she would then not hesitate long. He had the following case: A woman, having a child fifteen months old, had missed her period only six weeks. She thought she had taken a cold. On one side there was a pus-tube and on the other an extra-uterine pregnancy. The operation was so complicated that it was hard to say which side was the pregnancy. The woman recovered even without a fecal fistula, although the bowel was incised in the operation and had to be sutured. If the lesion be allowed to remain it simply endangers the life of a woman and causes more trouble than a primary operation.

Dr. Rohe (Baltimore) questioned several statements made by the various speakers. One was that a diagnosis is rarely possible till after rupture had taken place. He thought that that must be taken with some allowance. Another inference was that when pain comes on rupture has taken place. Another statement was that if the embryo was destroyed, a mass remains which is a constant source of danger. All these statements are too absolute. The ovum becomes easily dissolved at an early period. Sometimes it becomes extremely difficult to find the embryo. He remembered a case of abortion in which the fetal sac was perfect and full of fluid and yet no embryo was to be found. It was also not proven that all extra-uterine pregnancies are primarily tubal. He saw an instance in which both tubes were perfectly healthy, and attachment took place on the ovary. In connection with Dr. Vander Veer's case, he would relate a case: a woman twice had violent pain and collapse, together with all the classic symptoms of extra-uterine pregnancy. He gave a prognosis of early demise, yet the patient recovered. He found a mass in one iliac region; he assumed that the sac rutpured, but that the woman recovered from it. The further statement that if the embryo is destroyed by electricity it leaves a slough is not true.

Dr. Price said he would add a few points on diagnosis. First of all, scant and delayed periods of menstruation are common in pelvic disease, hence this symptom is entirely unreliable in extra-uterine pregnancy; we find it also in tumors. It is also common to find masses on both sides—for instance, a hydrosalpinx on one and a gestation-sac on the other side. Several cases of this kind are reported from London: Bantock removed an extra-uterine pregnancy on one side and a hydrosalpinx on the other; Edis an ectopic gestation-sac on one side and a small ovarian cyst on the other. The speaker recently removed a large gestation-sac on one side and a hydrosalpinx on the other. Sometimes it is difficult to say if the ectopic was right or left. No matter what the conditions are, the indications for interference are the same. Some time ago a gentleman made a diagnosis of hæmatocele and did not think of ectopic gestation; he asked the speaker what he was going to remove. He said, "One of twelve things." The difference between the cases examined by Formad and his was that the former died suddenly, as if from an aneurism or shot by a ball, whilst the cases that fall into the hands of a surgeon present the history of a slow and gradual hemorrhage; they bleed just like a woman who aborts—she bleeds until the uterus empties itself. The pelvis is full of clots in many cases; in Formad's cases some died without having been seen by anybody; they died suddenly at the wash-tub, etc.

What becomes of the fetus? Formad says that he finds it now more frequently than formerly, because he knows how to look for it. In one case he found the fetus perched up on the pancreas. Tait, in his first cases, failed to find the fetus; they all made tedious recoveries, because it was left behind. The speaker, in one case, flooded the abdomen with water until it returned clear; he then took a second pitcher and washed out a little boy. He is satisfied that the peritoneum takes care of the product of conception, although the recovery is slow. In reply to Dr. Montgomery, he would say that he knows him to be the last man to use a battery; if called to a case he would rather take his operating-case than his battery. Promptitude in treatment is important. In regard to the cases that have been reported as recovered without an operation even after rupture, he could refer Dr. Rohe to the one reported by Chadwick, in Boston, which afterwards landed in the Columbia Hospital in Washington. The Boston men were a long time in establishing a diagnosis; electricity was used a long time, until finally the fetus escaped through the bladder in Washington.

When and how shall we operate? There is only one time: as soon as we get the case, and then leave nothing behind. No matter what the growths are, operate early. Sometimes the operation is comparatively easy, at others difficult. The removal of an adherent tube is no easy task; the bowel will be opened a number of times, and must be carefully sutured. He was convinced that many cases of death were due to a ruptured bowel. Drainage and irrigation should never be omitted. McMurtry's case would have died if he had not drained. Dr. Thomas' record of recoveries is worthless. In Chadwick's case treatment amounted to nothing. The cases reported successes in Philadelphia are still ill, as the mass is still there and will yet come under the surgeon's hands. The positive diagnosis of cure will be settled by the surgeon later.

Dr. Vander Veer said he wished to be understood that he telegraphed to the physician, who had written to him, every time that the mass should not remain there, as it would give trouble later. A woman in his own city five years ago was supposed to be pregnant. She did not give birth, and it was therefore supposed to be an extra-uterine pregnancy, and an abdominal section advised. This was not consented to; two years later she discharged portions of a fetus through the rectum. She was then brought to the hospital, the abdomen was opened and the remaining portions removed, but the woman died from shock. In July, 1884, he saw Tait do two operations. One was a hæmatosalpinx. When Tait put his fingers into the opened wound he at once looked up and said he was wrong. He then brought out a fetus. The hemorrhage was appalling, but was checked by washing out the cavity with hot water. The woman recovered.

Dr. Werder (Pittsburgh) saw but two cases of extra-uterine pregnancy. One patient had been sterile for seven years, and menstruated regularly. She then missed for two or three weeks, and had cramp-like pains, which recurred every three or four days. An elastic mass was found, but an operation deferred until the husband could be informed. When the abdomen was opened it was full of blood, but there never was any collapse; so that no diagnosis of rupture was made. The fetus was not found, although there was no doubt of extra-uterine pregnancy. Recovery was tedious.

The second case was similar to the one reported by Dr. Price. At the time of operation the youngest child of the patient was sixteen months old. She was never free from pain, and had menstruated regularly six months before the operation. He was called in at one of these paroxysms and found a large elastic mass, very tender, in the left side of the uterus. The diagnosis of extra-uterine pregnancy or hydrosalpinx was made. She had a collapse at the hospital. On opening the abdomen a ruptured tube, due to extra-uterine pregnancy, was found. The patient was up on the twelfth day, with no. bad symptoms.

Dr. McMurtry said, he presumed to such a body the details of symptoms and diagnosis as well as the operative technique were known. He simply wanted to give his clinical experience. He believed no man could make a positive diagnosis previous to rupture. He would consider it if made always a happy guess. Hence all claims of electricity are worthless. He would go even farther, and claim that a diagnosis was not even always easy after the operation was performed. Many of the records of the past year will not bear close scrutiny. In his case the danger of death from peritonitis was sufficient excuse for an operation. Errors are frequently due to the fact that a diagnosis is first made which is not verified at the time of operation, but the former is so fixed in the mind that a connection between the two is made. He would emphasize that even if electricity arrested the growth of the fetus in the Fallopian tube, a body would be left behind which might suppurate and complicate the trouble. In lapse of time all of the old symptoms are bound to return, and the difficulties an hundred fold increased; hence electricity was only a fashion at the present time. He also believed that all extra-uterine pregnancies were primarily tubal. Dr. Price's observations of tubal disease on one side and extra-uterine pregnancy on the other show that the morbid condition which produced the implantation of the ovum in one tube also caused trouble in the other. The important question therefore arises, Should we not always operate on both sides? The woman might later again have another ectopic pregnancy. He also agreed that abdominal section was less dangerous than electricity in the early stages. A serious objection is said to be raised by the families and friends. He would say that if a woman was in great pain he had never met with this objection; but it is possible that before any serious symptoms arise consent might not be gotten. An early operation is what we want. It is not, however, the size of the growth, but the attachments that should determine our steps in interference. A delay is always dangerous, for we may have a suppurative peritonitis without parts of the fetus being extruded. In conclusion, he would again emphasize early operations. The danger of exploratory incision is overestimated.

Dr. C. A. L. Reed, of Cincinnati, then read a paper on

Treatment of Rupture of the Uterus, with Report of Two Cases.

The author made an earnest plea for the immediate operative treatment of all cases in which the rent is considerable and the child cannot be delivered without increased risk to the mother. His conclusions were:

1. In cases of rupture of the uterus when the head presents, a cautious attempt should be made to deliver by the forceps. On account of the danger of increasing the rupture, turning is in all instances contraindicated.

2. If the rupture be incomplete the uterus should be washed out with antiseptics.

3. Complete rupture always require abdominal section.

DISCUSSION.

Dr. Carstens (Detroit) said that he

fortunately never had a case of rupture of the uterus. He would adopt Dr. Reed's treatment in every particular.

Dr. Hoffmann (Philadelphia) had one case of rupture. The patient died in consequence of turning. He looked upon this unfortunate result as a text for a whole sermon. He commended the essayist highly for his views, and regarded the treatment as the only proper one. All other treatment would kill the mother. We could not know how extensive the injury was, and the injection of antiseptics might destroy the patient by the entrance of the fluid into the abdominal cavity.

Dr. Price (Philadelphia) cordially endorsed the paper. He saw two cases in consultation; in one of them there was an excellent opportunity of saving life by an operation. He urged abdominal section, but was not supported by the attending physician. Uterine drainage was resorted to, but the patient died in a few days. The other case was seen by his brother in a midwife's practice. The rent was posterior and to the left, eight inches in length. The placenta and cord were entirely in the abdomen; the fetus had been delivered by the feet. He made a prompt Porro operation, but the woman died about twenty minutes after she had been placed in bed. The speaker was of the opinion that transfusion would have saved this patient. One of Dr. Reed's cases succumbed to acute peritonitis; saline treatment would probably have saved her. Opium is bad treatment for peritonitis; he feared it more than anything else in abdominal work. Persons are often surprised that peritonitis does not follow certain abdominal operations; this is very easily explained: the patients already have peritonitis when they are operated on, and for this very reason the operation is performed.

Dr. Wathen (Louisville) remarked that over two years ago he reported a case of rupture of the uterus, and in his paper advocated the same principles of treatment as laid down by Dr. Reed. If there is any exception to abdominal section it is where the rupture occurs in the posterior portion of the lower segment of the uterus in the pouch of Douglas, the child and placenta having already been removed through the natural channel; here there were few chances of blood being discharged into the abdominal peritoneum, because drainage took place through the vagina. He was not positive if the abdominal operation was contraindicated here, but he knew that instances of recovery are reported in similar cases. When the rent was on the anterior or lateral aspect of the uterus vaginal drainage would be very imperfect. Where the fetus or placenta had escaped into the peritoneal cavity there could be doubt about the propriety of abdominal section. What method should we use? The sero-serous suture, as in the modified Cæsarean section of Sänger, or should we amputate the uterus, according to Porro? He believed that as a rule the Porro operation should be performed, but admitted that the Cæsarean section—the proper adjustment of the terminal edges of the wound—might take its place where union might as readily occur as in Cæsarean section. This question of suturing for ruptured uterus interested him particularly because it was first done in his state by Dr. McCoy, of Bowling Green, Kentucky. As regards the causes of rupture, he thought that meddlesome midwifery and lack of interest in the welfare of the patient were often responsible for the accident. Ergot was undoubtedly a potent cause for it, and should be eliminated from obstetrical practice altogether, except in the third stage of labor. It was surprising how even intelligent physicians would make great mistakes in the administration of ergot. He was lately awakened at 2 a.m. to see a case of labor in the hands of another physician. The doctor gravely told him that although he had given two ounces of ergot the child was not expelled. The speaker administered opium until the os was sufficiently dilated to extract a dead child. The forceps and version are often the cause of rupture. The speaker's case died because he could not prevail upon the husband to allow an operation.

Dr. Werder (Pittsburgh) saw two cases. One of these occurred in Carl Braun's clinic in Vienna. She was treated by gradual drainage and recovered. The other case he saw in consultation. On a Thursday the physician in attendance ruptured the membranes; during the night the patient felt something give way, but had no pains. However, she was very restless, with a temperature of 102.5° and pulse 150. The speaker saw her on Sunday morning; the child was undelivered, the head being above the brim and the cervix not fully dilated. The vagina emitted an offensive discharge. He suspected that the physician had given ergot, although this was denied. The child was dead. What was to be done? He regarded craniotomy as the safest procedure, and acted accordingly without difficulty. He then waited a while for contraction. No pains occurred; he then made slight pressure and found that the placenta was not in the uterus. He discovered a rent in the left side, through which the cord passed into the abdominal cavity. Through this he delivered the placenta. As the uterus was in a septic condition he advised a Porro operation, which was not permitted. Drainage was made, but the patient died two days afterwards.

DR. BANTA (Buffalo) said his knowledge of abdominal section was very limited, although he agreed with the writer. Ten years ago he was called to a case of transverse presentation, neglected by a midwife. Rupture had occurred in the lower segment of the womb. The patient recovered. Corrosive sublimate was used in the irrigations to an enormous amount, and yet the patient got better.

DR. VAN DER VEER (Albany) said he was both delighted and instructed by Dr. Reed's paper. In 1859 he was called to a difficult labor case. Ergot had been given by the attending physician, and while the child was turned something gave way. After the physician had made violent efforts at extraction the body of the child was delivered, but the head remained behind, and it was found that this was not in the uterus. When the speaker arrived the patient was dead; the head was movable everywhere in the abdominal cavity. This unfortunate case made a profound impression upon him. Had the patient been alive he would have performed a Cæsarean section. Since the Porro operation has come up he believed that would have been the proper operation in this case. Ordinarily he did not deem it wise to suture the uterus without trimming the edges, as in the improved Cæsarean section. The Porro operation is, however, preferable. Rupture of the uterus may occur even in natural cases.

DR. PRICE said this trimming of the edges is an important point that should never be forgotten. It holds good also in intestinal surgery. McMurtry, in his case of perforating ulcer of the cæcum, would not have had his case recover if he had not carefully trimmed the wound.

DR. REED said one criticism struck him with particular force, namely, that he gave opium in one of his cases instead of salines. It was his uniform practice in abdominal surgery to abstain from opium and give salines. In this case, owing to the clamorous solicitations of the patient, opium was given by the attending physician, not himself.

Several influences co-operated to bring on a fatal issue in his other case. She had been in labor several days, and the placenta was in the cavity for several hours. The rupture was so low down and involved so much tissue that the trimming process was out of the question. He regretted that he had not performed a Porro operation. In reply to Wathen's statement of drainage taking place from the vagina if the rent be low down and posterior, he would say that with the patient on her back the uterus is more likely to be drained into the abdominal cavity than into the vagina.

DR. WATHEN replied that this was a physical impossibility. Furthermore, the abdomen, by muscular contraction, expels everything that comes into it. In vaginal hysterectomy there is no trouble of securing drainage when the wound remains open; if a tube be introduced, however, trouble may arise, as it may become clogged and give trouble.

Afternoon Session.

DR. JOSEPH PRICE, of Philadelphia, read a paper on

Intra-Uterine Cord Amputations of the Fetal Extremities.

DISCUSSION.

DR. VAN DER VEER said the pathology was of the greatest interest in this deformity. It might be due to one of two causes: (1) an arrest of development of this particular member; (2) true amputation by the cord.

DR. CARSTENS was not ready to accept the theory that only maternal impressions were the cause of amputation, but he did not either believe that it was due to constriction by the cord.

DR. WATHEN said that undoubtedly cases are on record where the cord caused the amputation, but he believed it was the generally accepted opinion that it was due more frequently to amniotic bands.

Dr. Price stated that the child had been examined by a number of prominent men, who all agreed that there was no other solution. The fact that the stump was conical, both bones perfect, with a depressed erosion of the bones and two turns of the cord at this point, rendered this explanation positive. Many cases of amputation by the cord are on record, but he would admit that we could not throw out maternal impressions entirely. He remembered a case where a woman was badly burned and not expected to live. As she was near the end of pregnancy the surgeon gave instructions to perform Cæsarean section in case the woman died and the fetal heart-sounds could be heard. The woman gave birth to a child naturally, which was discolored on the surface exactly corresponding to the side injured in the mother. The case reported could not be explained wholly by maternal impression. All particulars pointed to a well-defined amputation. In an arrest of development he would look for some anomalous condition.

Dr. Carstens inquired if the pressure of the arm against the uterus might not account for it better than constriction by the cord.

Dr. Price replied that cord fixation was the only permanent fixation of the body in utero. In a case of transverse position, Schroeder turned five consecutive days and the fetus always took the same position again.

Dr. R. L. Banta, of Buffalo, N. Y., then read a paper on

The Rectification of Face Presentations.

He said that most obstetricians were opposed to the correction of face presentations, because most methods are inefficient; hence it is better to trust to nature. His experience was at variance with these teachings, because he thought it could be easily effected. He adopted Landis' description of the pelvis, the inlet of which was not irregular, but represented two ovals symmetrical to each other, so that the fetal ovoid could be easily made to engage in one space or the other. The sacro-cotyloid space gave room for the introduction of the hand and flexion of the head. (The essayist explained his method by diagrams, without which the paper cannot be properly explained.)

DISCUSSION.

Dr. Carstens said that he adopted exactly the same view as the essayist; in fact, he was preparing a paper explaining the same mechanism. Of the various methods this was the best. The only improvement he could suggest was to put the woman in the knee-elbow position or exaggerated Sims' position. He always gave chloroform in the early part of the manipulation, but when the woman was just coming out from the anæsthetic he made her bear down. After this he used Kristeller's method of expression. He was of the opinion that general practitioners ought to be taught to appreciate this method.

Dr. Seymour (Troy) said he had several cases in his earlier practice with his father's assistance. The latter advised version by the hand, and uniformly succeeded in flexing the head. The speaker thought that the vectis, which is now almost an obsolete instrument, would be of good service here—better than the hand.

He did not see any grave objection to applying the forceps at first with the curve reversed, and afterwards re-applied in the ordinary manner, as recommended by Richardson, of Boston. In most of his cases there was a natural and easy labor after the correction was accomplished. He thought correction ought to be attempted when the chin is posterior, but when the chin is anterior to the spine, anterior rotation would always occur spontaneously.

Dr. Banta said he had no objection to waiting for anterior rotation to occur if the attendant wishes to wait for this; but he only wanted to describe a method of cutting short this period. The knee-elbow position, mentioned by one gentleman, might be of service, but anæsthetics could not be easily administered in this position.

Dr. X. O. Werder, of Pittsburg, Pa., then read a paper on

Flap Splitting in Perineorrhaphy, with Special Reference to Tait's Operation.

After giving the history of plastic operations for rupture of the perineum, the origination of the principle of the flap-operation belonging to Langenbeck, of Berlin (perineo-synthesis), he described the method which is adopted by Tait.

He said that it had undergone several modifications by Tait himself. The essayist first tried this method for a complete rupture, and had so excellent a result that he adopted it ever since. In the old form the difficulty lay in the introduction of the sutures; this has fallen away in the latest form, in which all the stitches are perineal. He used silver for the deep sutures and silkworm gut for the superficial; the sutures being introduced just at the verge of the skin, about one-eighth of an inch from the border. The catheter he allowed to remain in the bladder five or six days.

DISCUSSION.

Dr. Hoffmann thought that some failures must necessarily follow this operation. If we remember the superficiality of the operation and the deep injury to the muscular tissue in bad cases, the good results are incomprehensible. All operations in which the torn edges of the sphincters are not united must necessarily fail. So far as Tait was concerned, he deserved no credit for originality of the method, for it belonged to Simpson. It has been modified so often, because it has run from one inefficiency to another, until it has become so complex as to be hard to understand. Mundé's death from pyæmia was an inevitable result. The original method of Tait in converting a transverse slit into a vertical one is unnatural and causes much pain. Emmett's operation contrasts strongly with this operation. Another objection is that always some cicatricial tissue is left on the outside.

Dr. Price said to understand properly the injury we must go back to the accidents of parturition. The tear generally begins on one side only. It is common for the whole pelvic diaphragm to be torn down, so that simply a skin perineum remains. When the injury is to be repaired it becomes necessary to expose the ends of the sphincter muscles and unite them just as is done in every other operation for the union of muscle. He looked upon the flap operation as a retrograde step. Even Mr. Tait had failures, as the speaker saw himself. Emmett's operation is the ideal operation, because by it the ends of the torn muscles are brought together. A suture picks up one end, and as the needle is passed through the crest of the vagina and then carried through the other side the other torn end is caught and the two thus brought in apposition. It is necessary to have a fixed point, as the crest of the vagina, through which the suture may pass to the ends of the severed sphincter muscles. He denounced the Peaslee needle on account of its bayonet form and strong handle, as if it were made to stab. The success of the flap operation is often delusive; sometimes a partial success follows it because it adds a little power to the internal sphincter, but this is delusive as long as the bowels are somewhat constipated. As soon as the stools become more liquid, as in summer, the failure will show.

Dr. Wathen said there was no subject upon which there had been written more scientific nonsense than perineorrhaphy. He tried to get at the kernel of the thing. The many methods confuse an otherwise simple operation. He never failed to get a good result except in one instance, and that was where masturbation followed the operation. He never had sepsis, nor had he ever a primary or secondary operation followed by incontinence. The operation is simple enough, so that we should always succeed. Emmet has shown us the principle by which control of the sphincter muscle may be gotten. He was sorry to see that many distinguished gynecologists of this country operated without observing this. He could not, however, denounce the flap-splitting operation altogether, because it may supplement Emmet's. The trouble is that most operators, in adopting Tait's method, do not go deep enough to reach the ends of the severed muscles and repair the pelvic floor. If this is not done we will have a rectocele and protrusion of the pelvic floor. The splitting process denudes the ends of the muscles if it is done correctly; a square flap is not necessary if only the ends of the muscles are reached, but they must be held together. The best way of doing this is by the deep animal suture, as first recommended by Schroeder, and advocated by Marcy, of Boston, last year before this Association. The sutures may be supplemented by the silver wire to add strength. Fourteen days is too long to leave the sutures in place; by this time the speaker sent his patients home. Regarding the drawing of urine, he thought the catheter was not necessary, neither the occasional nor permanent use of it. He doubted if the urine would give any trouble in an aseptic wound. The bowels should be kept purged regularly a week before the operation; after the operation the bowels should be moved once daily after the third day. The essayist spoke of liquid food. This is misleading, for milk is a liquid food and yet causes hard stools. If he meant animal broths he would assent to this. The pain described by Dr. Hoffman, said to attend this operation, he could not understand if the sutures were properly buried. He could therefore not look upon it as a retrograde step; it may be a good supplementary operation to the other. If a primary operation is properly performed there will be no cause for a secondary operation. He recently performed two such operations; in one the perineum was ruptured into the bowel and up into the vagina about three inches. The hygienic surroundings of the patient were bad, yet she was up on the twelfth day nursing her baby, the parts being well united. In the other case, where the rupture extended one inch upwards into the bowel, union was also perfect.

Dr. Carstens agreed as to the unnecessary use of the catheter. He also approved somewhat of the let-alone treatment; it is not good to wash out the vagina too much. He was of the opinion that Tait's operation might be of service in some cases. He knew cases where the rectum had been torn up one inch, and yet the result was good. Each case must be judged by itself, and the proper method adopted accordingly.

Dr. Werder said other operations were just as efficient as Emmet's; they had the advantage of being simpler and much more rapidly performed. In all his cases the sphincters had healed and there was retention of the bowel. In one case he had a recto-perineal fistula; the patient herself said she had control of the bowels at times, whilst the nurse said that as far as she knew the patient never had incontinence. Dr. Hoffmann said that an operation which would be followed by pyæmia should be condemned. This was no argument, for blood-poisoning may follow the slightest wound, even a cut on the finger. In reply to Dr. Price, he would say that the perineum is more than a skin perineum. If the efficiency of the operation needed any further corroboration, he would cite the results of Tait, Barnes and Mundé, who certainly were all competent men.

In conclusion, **Dr. Seymour**, of Troy, N.Y., read a voluntary paper on

The Necessity of Recognizing Three Planes in the Obstetric Pelvis,

Which, however, on account of the lateness of the hour, was not discussed.

SECOND DAY, SEPTEMBER 18.

Morning Session.

Dr. David Barrow, of Lexington, Ky., read a paper on

The Refinements of Abdominal Surgery having an Influence on General Surgery.

He traced from the success attending abdominal operations the development of operations in other cavities, as the brain and thorax. The opening of other cavities naturally resulted from the perfection of abdominal surgery.

The great lessons taught by abdominal surgery are:

First, cleanliness. This is true asepsis which can be attained by clean water and clean soap; no chemicals are necessary. Listerism is only cleanliness sought for. Dr. Dudley, of Lexington, was the most successful ovariotomist of his day, yet he knew nothing of antisepsis. Tait even disregards asepticism, and disregards the admission of germs in a cavity even during an operation, because they are easily flooded out again. It is better to exclude germs from a wound than to destroy them after they have entered. The general surgeon washes his hands carelessly even in an antiseptic solution, and then wonders why he has bad results even after he has made careful operations.

Secondly, drainage is of importance. One operator said if you would tell him how the drainage-tube had been introduced he would tell you your results. Septicæmia will result without proper drainage. Another function of the drainage-tube is that it acts as a sentinel, warning us of hemorrhage. This is of the greatest importance in brain surgery. The fluid accumulating in a cavity should be frequently drawn off—every half hour if necessary—as fast as it accumulates. It is really not drained, but drawn off. Irrigation should be thorough, with a minimum of sponging. The cleaning away of débris must be thorough. A frequent danger arises from prolonged anæsthesia.

The qualifications of an abdominal surgeon should be coolness, skill and rapid action. He must be prepared for emergencies. In small towns it is difficult to get two men together, hence the abdominal surgeon must be prepared to do everything himself. Tait does most of his work himself, an assistant being in reality merely a figure-head. On no account should the assistant put his fingers into the abdomen except when absolutely necessary.

DR. JOSEPH HOFFMANN, of Philadelphia, then followed with

Accidents of and Complications Incident to Abdominal Operations.

He spoke of the recklessness of many operators who only worked for renown. Misinformed by those who were skilled, they looked upon abdominal operations as easy. The removal of an organ is the least part of an operation, but the attention to accidents and complications requires constant vigilance. It is usually said that after-treatment is the most important part. This was not his experience; only the man who does the same operation over again on the same patient will attach most importance to the after-treatment. The simplest operation may eventuate in the most complicated. Half-way measures must be disastrous; all degenerated tissue must be removed, thorough curetting being resorted to if necessary. As the bloodvessels are the last to lose their integrity, hemorrhage can usually be readily controlled. One important but difficult task is the tying off of rudimentary appendages in the bottom of the pelvis, which requires great manual dexterity. Another difficulty may be the application of a ligature which may be liable to slip, hence a large button of tissue should be left. The author preferred twisted to braided silk because it was smoother. A great difficulty is the danger of injuring the ureters. He thought here was still a good field for vivisection to arrive at further information. Adhesions may also cause great difficulty in operation. Operations with co-existing pregnancy is not often referred to, but it is no contra-indication in proper cases. He once operated for an extensive purulent peritonitis owing to a pyosalpinx. The patient recovered entirely. He believed also in free purgation in abdominal cases. Careful disinfection of the stumps before they are dropped in the cavity should never be omitted. A distinction must be made between peritonitis and simple serous effusion. He was opposed to carbolic acid because it caused adhesions, but believed in free irrigation and drainage. The salines are of great value. Fistula is often thought to be due to pressure of the drainage-tube on the intestine. He thought, however, it was often caused by the pressure of fecal matter on the bowel. He had two cases of fecal fistula where no drainage-tube had been used. When the bowel is torn and not properly sutured there is no excuse for a bad result. Some persons make much of a slow union of the incision. He did not look upon it as a misfortune, because the patient remained on her back so much the longer and the cicatrix became firmer. Hernia may result from a short incision if not properly strengthened. There are three causes of hernia: (1) not sufficient closing of the abdominal wound; (2) a too early rising of the patient; (3) a neglect on her part to wear an abdominal supporter. Post-operation hemorrhage: The cause is often conjectural. It may be due to a hyperplasia of the uterine mucosa. Sometimes it must be controlled by the use of the curette, iodine, etc. Finally, an operation should never be a matter of routine, but careful study. Each case must be studied for itself.

DISCUSSION.

DR. MCMURTRY said in Dr. Barrow's paper one point required further elaboration, namely, the bad effect of prolonged anæsthesia. This is now recognized by most operators, and the time for operation limited as much as possible. A distinction must, however, be made between rapid and hasty work, but nothing should be done to divert the attention of the operator; all conversation on pathological questions should be omitted—everything kept quiet and orderly. An allusion was made by Dr. Hoffmann to incomplete operations. They are the most distressing complications to be met with. Every operation should be as complete as possible. How many operators now complete operations that were formerly incomplete? He was also glad to hear a plea made for simple instruments. Many are unnecessary; for instance, a needle holder is unnecessary in abdominal work: the finger is the best needle-holder. Work becomes truly artistic when it is simple and elegant. As regards drainage, general surgeons are coming round to accept the view of abdominal surgeons in this particular. Many of us could recall cases where we would drain now, if we had to do it over again. He remembered a case in which he had to drain three weeks after an operation, necessitating a re-opening of the abdominal cavity for this purpose.

Dr. Vander Veer said that some of the general surgeons would take an opposite view in the influence of abdominal surgery on general surgery. When Peaslee was a general surgeon he was the neatest operator imaginable; he carried out drainage far ahead of his time. Had others paid more attention to his practice they would have been better off. Dr. Markoe's good results were due to the same practice. The difference may often be seen in the general makeup of surgeons and their results judged accordingly. He did not believe in Lister's spray in abdominal surgery, but he would not go quite so far as Tait in simplicity. Everyone sees the importance of drainage-tubes, but this is not all to insure success in abdominal surgery. He could not believe Mr. Tait to be in earnest when he says that every country practitioner should be able to perform a Porro operation. Not everybody is fitted for an abdominal surgeon. Fistula he believed resulted more frequently when the drainage-tube was not used than when it was used. Hernia is due to the causes already given—too early rising, etc. Hemorrhage is sometimes hard to account for; sometimes he thought he had perhaps lost a portion of the tube. In one case it plainly resulted from an endometritis fungosa. After the uterus was curetted it finally ceased.

Dr. Potter (Buffalo) said, to him the thought occurred what the world's greatest captain said: "In war men are nothing; a man is everything." In abdominal surgery the individual is everything. Sometimes he also thought he wished our late civil war could be held over again; not that its horrors should be re-enacted, but that its surgery, excellent as it was, might be improved. Undoubtedly many lives could now be saved that were then lost. Dr. Hoffmann alluded to the knot that should be secured. Whether it be the Staffordshire, the Bantock, or any other knot, it is immaterial; the plain, every-day knot is good enough if well made. Draining is of importance; but for the proper knowledge of it he was sure he would have lost a patient. A patient who had much pus and débris in the abdomen seemed to succumb on the table; a pitcherful of hot water was poured into the abdomen and she revived and had no unpleasant symptoms afterwards. The prolonged heat is also of importance as a stimulant. Hence irrigation with hot water acts in three ways: (1) it prevents hemorrhage by closing up the oozing vessels; (2) it removes all débris and cleans out the cavity; (3) it rallies the patient from shock. This irrigation has saved perhaps more lives than any one idea. Another thought occurred to him, namely, the time consumed in operating. He would relate an example: A prominent operator was making an abdominal section removing a simple cyst; presently he heard fifteen or twenty watches clicking, when he observed they were timing his operation instead of watching the operation. Any operation is done soon enough that is done well enough.

Dr. Price said he would call attention to a few points. He had little to say about Lister as he had little to thank him for. Surgeons worked away with the carbolic spray until hundreds died of carbolic poisoning. He himself once was a victim to carbolic acid, which set up a renal disturbance. Formerly surgeons washed themselves after operating; now it is a rule to cleanse one's self before touching the patient. Simplicity is the next important thing. Goodell, in the first edition of his book, gave a long list of articles necessary for an operation; among other things, the family were to furnish old sheets, old carpets, etc. The speaker opposed such abominations, and Goodell in his last edition discarded all old things and wants everything new and fresh. It is difficult to have the patient clean enough. Everything about the house should be clean. One speaker said "it is the man, not men." He would add that a marshall should have nothing but marshalls about him. Many men seem to think they must begin the study of surgery in the abdomen. This is wrong; they should have had some previous experience in other departments of surgery, and not have been simply baby vaccinators. This was not the case with McDowell, Atlee, and Dunlap, who were all surgeons. Atlee's second operation was never improved upon. When he put his patient on the table she had a pulse of 104. He operated without ether, cleansed the abdomen thoroughly, and put her to bed with a pulse of 100, after thirty-five minutes. No collapse followed.

The Staffordshire knot may do a great deal of harm if not secure. Few men know how to tie it; Tait ties it well, but takes two hemostatics in tightening it, which shows that he does not trust his hands. The best knot for the inexperienced is the figure-of-8 knot. He also agreed that the tube rarely caused a fecal fistula. It is often due to a lesion of the bowel not recognized at the time of operation. If the growth is properly enucleated and the bowel carefully inspected no fecal fistula will result. Ligatures applied to disorganized tissue are also bound to give way, hence the disorganized tissue should all be carefully removed and the ligature applied to healthy structure. A general hospital is a grand neglected water-closet. The absence of a water-closet near a patient can be tested by the temperature chart. He knew this from personal experience in the reconstruction of a hospital in Philadelphia. Before the closets were removed the temperature would be 101°, the patient otherwise being in good condition. When they were distanced it fell to normal.

Hernia seemed to puzzle many. The speaker saw little of it. It is largely due to few stitches imperfectly applied, especially with a large needle. He was surprised that tetanus did not result more frequently from the use of a long-handled needle. Since small needles are used and many stitches inserted these accidents are less common; also stitch-hole abscesses are fewer.

The greatest cause of abdominal trouble is pus. Hundreds die from it in every state to-day. The sponge tent is frequently responsible for it. He had a case where a prominent Philadelphia gynecologist introduced a sponge tent thirteen years ago; eight years ago a prominent teacher made vaginal drainage, which relieved her; but the relief was not thorough, a section was then made, and now she is well. Drainage should be properly made, but the tube should be small and strong. The holes in the glass should not be too large for fear of causing omental polypi; fixation may be prevented by gently rotating the tube from time to time. He had a small concave knife made for the purpose of cutting away any projections that might occur, but so far had not used it. Irrigation for cleanliness should be done with a simple tube and hard rubber nozzle which is pierced on four sides with holes. Water is not dangerous in the peritoneum. He closed the abdomen already full of water in pus operations. Martin's results without drainage are not encouraging. Americans should not follow him; a loss of fourteen patients out of seventy-seven pelvic operations is a bad record.

The President at this time introduced Dr. Dunlap, of Springfield, Ohio, to the assembly, remarking that he was a pioneer ovariotomist, having performed his first ovariotomy forty-six years ago.

Dr. Dunlap then gave an interesting reminiscence of his early experience. He said it had been stated that McDowell, Atlee, and Dunlap were all surgeons before they began their abdominal work. He would say for himself that he had not been a surgeon, but was forced into it. An abdominal surgeon must have the gift of nature for such work; he must be free from excitement and not lose self-control. Few of the present age knew what surgery was forty-six years ago. Two years after he began practice he encountered his first case of ovarian tumor, which he had tapped many times, until she was nearly dead. She wanted to be operated on when she heard ovariotomy had been done before. The speaker had read a description in a little dictionary that it was done, but it also stated that it was murderous and nobody would be justified in performing it. He so informed the patient, who insisted upon it and threatened to send for a butcher if he would not operate. He proceeded to the operation on the 17th day of September, 1843; he opened the abdomen and found the tumor: that was the only guide. He knew it was something that did not belong there. He ran his hand around it, and doing so broke a sac: he sponged out the contents; finally the tumor slipped out, and to his delight had a long pedicle. He then pierced the latter and tied it off with waxed silk. He allowed the ligatures to hang out, closed the wound, and adopted the dry treatment of the pedicle. Water dressings were then in vogue, but he kept water away. The woman lived a month, and was almost out of danger, but the sudden checking of the water of which she was constantly drained brought on a diarrhœa. This was controlled, when the kidneys gave trouble, and she died on the twenty-fourth day. He was satisfied if she had been operated upon early enough she would have been saved. He wrote up the case and sent it to this city for publication, but Dr. Harrison would not publish it for fear that it might induce others to do a similar foolish act, and sent it back to the author. The latter then tore it up. Since then he had performed over 400 laparotomies, and he had a success in 83 per cent. of all his cases. Some of the cases that died ought not to have been operated upon. His eighth or ninth case, that of a young girl about seventeen years of age, was of a simple nature, without adhesions and with a plain pedicle. The operation was easy, and he took particular pains to exclude blood and air. Nevertheless the appearance changed already on the second day; the pulse became small and quick. She was worse on the third, and died on the fourth day. He did not know how to account for it, but he felt that he had killed her. He had not had his hand in the abdomen—had taken no fluid out. He supposed air came into the abdomen and caused decomposition. This, then, was a case in which drainage should have been used.

Some of his earliest points were thorough cleanliness. The wounds always got well. He always found blood-clots most troublesome to remove, and always used sponges for cleansing them out. He did not care for the length of the incision, it being his rule to make a long incision so that he could see what he was doing, because blood-clots might escape observation. He did not put much faith in drainage-tubes, believing them to be only necessary when the operation was not properly done. At first he allowed the silk ligature to hang out of the wound, but finally simply cut it off and dropped it in the cavity. The great drainage-tube is the kidneys. If they cease to act the patient will be dead in three days. Everything is in cleanliness; he was impressed with this early in his operations. He did not believe in Listerism. These were his principles, and his success was as good as any man's.

Hernia had been attributed to big stitches. The speaker used a large needle, so that it would pass through one wall of the abdomen, out again, and through the other side, and making few stitches. The intervening spaces he united with the isinglass plaster. The stitches were taken out on the third day, when union was perfect. After this they did no further good. To prevent hernia he applied the many-tailed bandage and compress, and as soon as the patient was able to sit up made her put on a body corset. This she had to wear for a year, after which the cicatricial tissue was firmer than the other tissue of the abdomen.

Dr. Hall (Cincinnati) approved the use of drainage-tubes. He thought the low mortality was due to their use. He had not performed any operation in the last few years without them, for in one case where he did not institute drainage the patient died. If not necessary they can easily be removed. One speaker said after-treatment was of little consequence if the operation was properly done. He would admit that in good cases it was not, but he never felt safe until the fourth night was passed. The inspection of the drainage-tube every little while insures success. He believed flushing through the tube was better than pouring water into the abdomen with a pitcher. As far as time is concerned, no man should operate against time; if the operation is imperfectly done it is of no value, no matter how rapid.

Dr. Wathen said he wanted to reply to the criticisms made by Dr. Price to large needles. The speaker did not believe they would cause tetanus, for this accident may follow the use of small needles as well. At the recent meeting of the American Medical Association at Newport Dr. Taber Johnson, of Washington, reported some cases of tetanus following abdominal section where small needles had been used. Dr. Kimball alluded to the same fact, but it was not apparent that large wounds had anything to do with it.

Dr. Price replied that the statistics of Dr. Johnson all included old cases, with the exception of one that occurred recently.

Dr. Seymour suggested that it might have been due to the clamp.

Dr. Price continued that Dr. Dunlap commenced the operation correctly by not using the clamp and dropping the pedicle. This accounted for his great success. Dunlap had eight consecutive cases without a death, which was greater than any other beginner at that time. The speaker desired to express his special appreciation of Dr. Dunlap's work for his ideal method of performing the operation.

Dr. Hoffmann said he felt like a child reaching out beyond itself in the presence of Dr. Dunlap. We could not appreciate the difficulties, calumny, slander, etc., that a man reaped at that time when he started out to perform these operations. The history given by Dr. Dunlap taught us a great lesson: how to be charitable to others.

On motion of **Dr. Price** the thanks of the Association were tendered Dr. Dunlap for his interesting remarks, the appreciation of his labors, and finally the good wishes for his future welfare.

Afternoon Session.

Dr. L. S. McMurtry, of Danville, Ky., read a paper on

Peri-Uterine Inflammation: Its Pathology and Treatment.

He looked upon peri-uterine inflammation as the most common condition in gynecology. Thirty years ago Bernutz and Goupil described the true pathology as obtained at the autopsy, but only since abdominal surgery has developed could it be appreciated on the living. The old classification into para- and peri-metritis has been swept away by modern investigations, and the division is now more properly made between inflammation of the ovaries and tubes, and puerperal infection. The speaker drew a comparison between the pelvic abdominal and thoracic serous membranes. In both we could have croupous and catarrhal inflammation. In both we might have adhesions. Fluxions occurred in pleurisy as well as effusion in peritonitis. Inflammation is commonly met with in the tubes and ovaries. It could only be stated in fatal cases whether the trouble was in the ovaries or tubes. These were the views of Bernutz and Goupil, and are the essence of the advanced pathology of to-day. Since then science has made no further advance than to fill up the gap between life and death. The essayist endorsed these views. Peri-uterine inflammation is not to be classified as para- or peri-metritis. Pelvic inflammation is always sympathetic. As a rule it is the result of gonorrhœal or puerperal infection, or it is caused by tents and traumatisms. In a higher grade there is greater congestion of the peritoneum, with an effusion of lymph and plastic material. In a still higher grade the entire pelvic peritoneum is involved, as a rule going to a fatal issue unless surgically treated. If the inflammation be slight, there is scarcely any trace; if severe, bands of false membrane form, which cause pressure on the ovaries and atrophy of these organs. The influence on the menstrual process is caused by increased thickness of the mucosa; the secretions are imprisoned and ovarian abscess may form. The inflammatory process takes place beneath the serous membrane, hence it is described as peri-uterine.

The clinical symptoms are as follows: First a gonorrhœa, which is perhaps innocently contracted, followed by pelvic peritonitis. The acute symptoms pass away, the patient becomes somewhat better, but is never entirely well. The menstrual periods are accompanied by intense pain. A displacement of the uterus is found, a pessary inserted, but the trouble persists. The patient becomes an invalid and suffers from reflex nervous disturbances, besides the local pains. The hot douche is used, massage, electricity and forced feeding tried in turn, but with no permanent relief. The ultimate issue will be either atrophy of these organs due to the menopause, or cessation of the trouble in consequence of removal of these organs. The latter is the only one which gives permanent relief. If the organs be so matted together that they cannot be removed, drainage may prevent further trouble. If the ovary be cirrhotic or contain an abscess it should be removed. We must never overlook the importance of menstrual congestion. Pelvic pain is always sympathetic. A careful diagnosis should always be made before treatment.

DISCUSSION.

Dr. Potter remarked that the paper opened up the whole field in the department of pelvic disease. He thought it was fortunate for both teacher and student that the nomenclature of inflammation of the pelvic organs, as para- and peri-metritis, was changed under more modern pathological studies. When Emmet laid the foundation for the study of pelvic cellulitis, his ideas were adopted by most gynecologists as affording the most rational explanation that had been given. As time went on he was compelled to modify his views somewhat, yet he still clings to the original idea that the trouble originates in the cellular tissue surrounding the pelvic organs. Another school, led by Battey, regards the ovary itself as a nidus whence the trouble spreads. Others, again, conclude — Tait and his school—that it begins in the tubes and spreads out from this direction. They may all be right, because they looked at pelvic inflammation as it arose in different classes of cases. It is often difficult to fix the origin of the infection, whether it be puerperal, specific, or traumatic. First there is irritation, then nerve turmoil, then congestion and blood stasis. As a final result, an inflammatory abscess containing pus.

The specific nature opens up one of the most important fields of gynecological medicine. As we understand the pathology of gonorrhœa more and more, since the discovery of the gonococcus by Neisser, we must shudder at the consequences. It is almost dangerous for a young woman to accept an offer of marriage. She may enter into a contract that brings on "woes unnumbered." It would be well if all of the facts could be known beforehand and referred to the medical adviser.

The essayist also alluded to traumatisms as a mode of infection. The speaker thought not sufficient attention was paid to this fact generally. It is not many years ago that a Ferguson speculum, a sound, a dressing-forceps and some cotton were regarded as a sufficient armamentarium for a gynecologist to start out with in his profession. Sir James Y. Simpson, when he invented his sound, introduced an element of danger capable of doing irreparable damage. It led to the introduction of instruments of danger, bringing up poisons on the surface of the uterus which caused a variety of inflammatory conditions, from the merest simple congestion up to the formation of an abscess and chronic invalidism. It would be better for the practice of gynecology if there were no such a thing as a sound. He used the instrument so seldom that he would be ashamed of its condition if friends wanted to examine it.

Another instrument which may do a great deal of harm is the pessary, which should also be restricted in use.

Dr. Montgomery considered the essay a clear account of pelvic inflammation, but he would not go so far as to say that all of these cases required a laparotomy. In many of these cases there is adhesive peritonitis; this may bind down the uterus and cause displacements. These conditions give rise to the cases of retro-displacements of the uterus that constantly come under observation. They are generally treated by pessaries, which is a mistake, because these are introduced with the idea that they will correct the position of the organ. They must be used simply as measures of support. The speaker's method was to put the patient under an anæsthetic, introduce two fingers into the rectum, and thus endeavor to tear off the adhesions between the rectum and uterus. After the adhesions have been separated the introduction of a pessary is followed by complete relief. In many cases the adhesions may thus be separated without an abdominal operation. It must, however, be done with care, for there is great danger of tearing off the softened tubes. When it can be done this plan is preferable to laparotomy.

Dr. Hoffmann regarded Dr. Potter's idea of endeavoring to explain pelvic peritonitis from different causes as absurd. There must be a common cause. Bernutz and Goupil's work was not founded on theory but observation. Bernutz's views were in opposition to Simpson and Nonat. The latter's hobby was peri-uterine phlegmon. These authors did not find it; they came upon something different. The little amount of cellular tissue must take away the idea of the existence of a peri-uterine phlegmon. The adhesions do not exist in the manner as understood by the majority of persons. They are not confined to the ovaries and tubes, but also attach themselves to the pelvic viscera. The exact size of the lesion cannot be told through the vagina, so also the ovary and tubes; the size is the most deceptive thing, but we find that there are adhesions. Now as to the cause. Idiopathic peritonitis is a myth. Five out of six times it is due to inflammation, generally of a suppurative nature, of the vermiform appendix. The causes can be counted on the fingers: cold during menstruation, falls and injuries, miscarriages, puerpual infection and gonorrhœa.

In Bernutz and Goupil's ninety-nine cases, if we take away the causes from childbirth, over fifty per cent. were of gonorrhœal origin. This is as real to-day as it was then, no matter what is our idea of the bacillus. To set up this trouble all that is needed is pus.

As regards treatment he did not believe in massage in serious cases. So also electricity does little good as a rule. The men who use electricity most often have been in the abdomen the fewest number of times. To say that electricity will melt lesions which take the strength of scissors and knife is nonsense. These men either deceive themselves or do not tell the truth. He would discuss the ultimate treatment in another paper.

Dr. Wathen said in the first place he would state that he was not an electrician; he had no battery, although he was familiar with the literature of Apostoli and his followers—yet he could not entirely agree with what had been just said of the use of electricity. No one would attempt to clean out a pus cavity with the electric current; but when there is an inflammatory deposit, no acute stage, no collection of pus, but a lack of nutrition, the judicious use of electricity may result favorably by affecting the trophic nerves, improving the nutrition of the parts. There are instances, even of gonorrhœal origin, of inflammation of the cellular substance, that, so far as physical symptoms indicate, are entirely relieved. He remembered one case in which the pelvic tissue was so filled as if it were plaster of paris. Five years ago every vestige gradually disappeared, the uterus became more movable, and the only trouble remaining was a painful menstruation from a flexion of the cervical canal. This was relieved by dilatation, and now it is impossible to detect the least vestige from gonorrhœa.

He also differed in the opinion that the inflammation was confined to the peritoneum, for the peritoneum is less in thickness than the cellular tissue. There must be some cellular inflammation, for this tissue is intimately blended with the peritoneum in every part.

He also differed from those who believed that all that was to be learned about peri-uterine inflammation would be found in Bernütz and Goupil's book. If we would have been governed by this alone no progress would ever have been made. Surely there are other men who have also contributed something, and he hoped that yet something new would be discovered to add to this interesting subject.

Dr. Price said there was a class of men who could not recognize the presence of pus even if it was present. Those who operate every day know better; it is astounding to see how much is present. He accepts Bernutz and Goupil's views wholly boiled down with practical experience. He could not accept Emmet's pathology. A common observation is phthisis in a patient with pus tubes. He had a case in which three eminent men examined the lungs at different times, and they all counseled, "Hands off." Had she been operated it would have been a blow to abdominal section. Exclusive of scrofula and tuberculosis, gonorrhœa is universally found. In public practice he always asked to see the husband, and never failed to obtain a history of gonorrhœa. Hundreds of women who have never conceived have a mass right and left of the uterus. Hence he accepted Noeggerath's theory. He believed cellular inflammation was possible, but regarded it as independent of the tubes and ovaries. Other causes may, however, be sometimes responsible for pelvic inflammation. In Pepper's "System of Medicine," is described a case in which pyosalpinx followed trachelorrhaphy. Sometimes death is due to a co-existing peritonitis. The mortality of operations for laceration of the cervix has become so large that it has even exceeded that of ovariotomy. For this reason Emmet has added words of caution against its indiscriminate use. Dilatation of the cervix is another cause. In the last two weeks he examined half a dozen women with pus-tubes who had recently been dilated. Dr. Emmet once redressed a uterus in this way and the patient died. This has also happened to Thomas. The chances for electricity curing these cases when compared to operation is like abolishing fire engines and endeavoring to put out a fire with a Davidson syringe. An obstetrician in Philadelphia, who hardly knew if the pubes or sacrum was in front, reported a case of suppuration and expulsion of a fibro-cyst from the vagina as one of his failures from the use of the electric current. The only relief is abdominal section; drainage through the vagina may give relief for a time, but it is not permanent. The excision of the sacrum has lately been recommended by Wyder in a paper read before the German Gynecological Society. This was like getting at the tonsils through the diaphragm. He preferred to get at the trouble from above and shelling out with the fingers. He endorsed the condemnation of unnecessary instruments as mentioned by Potter. We should use as few and simple instruments as possible. All methods of treatment should be simple.

Dr. McMurtry, in conclusion, said he had but one point to add. This was in regard to the nomenclature. We speak of cellular abscess. In reality there is no cellular abscess; it is either in the tubes or ovaries.

The President, Dr. W. H. Taylor, then delivered the

Annual Address (see page 328),

which was listened to with great attention by all the members and visitors present. At the close the thanks of the Association were offered the President by the Fellows for his able address.

[Third day's proceedings in our next issue.]

Quack Advertisements in Religious Newspapers.—At the Centennial General Assembly of the Presbyterian Church, held in Philadelphia, the committee on Bills and Overtures recommended the adoption of a resolution that the General Assembly, while disclaiming responsibility for, or authority over, religious journals not published under its direction, disapproves of "all those advertisements of patent medicine, dishonest in form, fraudulent in substance, or prejudicial to the refinement, modesty, and purity of the home life.—*Memphis Med. Monthly*.

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Cincinnati, September 28, 1889.

The Week.

PROFESSIONAL WORK.

We are always pleased to note life and activity in medical circles, and never before have we had so great reason to observe the thumping, bounding pulse of progress as at the present time. All the local medical colleges report an increased attendance over last year, the medical societies evince an increased activity, while the men who are delving in the unknown for new treasures are not lacking in encouragement, enthusiasm, and results. In illustration of which we point with pride to the pages of this issue of the Lancet-Clinic, where will be found the original researches of Professor Herrick, in which are shown for the first time the means of differentiating between the motor and sensory cells of the cortical portion of the cerebrum. This is an exceedingly valuable contribution to our neurological knowledge. It is with a great degree of pleasure that we are able to announce that Professor Herrick is engaged in a series of observations in this direction that may be looked for with the very greatest interest by the entire medical profession.

In this connection we earnestly hope

that the Cincinnati Hospital Trustees will make an effort to obtain the services of Professor Herrick for the delivery of a course of lectures in the Hospital Amphitheater on comparative anatomy. We suggest this to the Hospital Trustees because the lectures given in the Hospital are open to all the medical students in the city, while if given in any of the medical colleges only the students of a particular institution would be benefited. The trustees of the University would willingly do this, but at present they have no lecture-room large enough to accommodate more than a thousand students that will desire to obtain the benefits of such a course from so accomplished a teacher as Professor Herrick.

THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.—The members of this Association and our readers will appreciate the exceedingly full report of the recent meeting, for which they are wholly indebted to Dr. W. H. Wenning, a well-known member of the Association and of our local profession.

CINCINNATI HOSPITAL EXAMINATIONS.—The annual examinations for the position of externe in Cincinnati Hospital will commence Monday, September 30, at 9 o'clock a.m., in the library of the Hospital.
F. O. MARSH, M.D.,
Secretary of Staff.

DR. ENNO SANDER, the well-known manufacturer of mineral waters looked in upon us this week. His visage always carries brightness with it.

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations.
LEONARD FREEMAN, M.D.,
J. C. OLIVER, M.D.,
OTIS L. CAMERON, M.D.,
F. O. MARSH, M.D.,
Curators and Microscopists.

THE PHYSICIAN AND HIS JOURNALS.

[The following editorial in the last issue of the *Journal of the American Medical Association* indicates a degree of good sound reasoning on the part of the writer that is highly creditable. The great work of that periodical is to build up, organize and unify the great mass of regular physicians, and to bring them into direct affiliation with the American Medical Association through local, district, tri-state and state societies. With such a policy success is assured, and the American medical profession will attain a degree of usefulness and influence that can scarcely be comprehended]:

There is an ever present tendency among men, in a sort of vague and misty way, to venerate the past; in a way quite egotistical to magnify the present, and also to compass the future with grandiloquent interrogations.

To the first and third counts we plead not guilty—but to the second we enter our confession, since a simple statement of facts can hardly seem to those in other lands other than most notable exhibitions of egotism. When we come to enumerate the medical practitioners in the United States, the number of our medical schools and their improved facilities for teaching, the rapid development of medical societies and the numbers of medical journals that are in demand, we submit that the parallel is not to be found in the past or present history of any nation. If any one has doubts upon this subject we commend to him the simple study of statistics. Again, there never was a time when in this and in other lands there was such an array of talent applied with utmost tension, to medical investigation. There was never a time when there was so much of original discovery, and never before such facilities for rapid advances in medical education. There never was a time when medical journalism was so enterprising as now, nor its pages so filled with valuable instruction, and there never was a time when a physician could so soon fall behind and be lost sight of as now. A single year's neglect will render his needs conspicuous. Only the most industrious and critical readers are fully abreast of the times, and in the hour of need and of their opportunity how quickly these come to commanding prominence.

If all these facts be true, how can we do otherwise than by their simple statement magnify the present? If they be true it is obvious that to the well informed physician his journals are as essential as is his daily bread. And while making his selections, will he pardon if we make one or two suggestions.

We believe that a first duty of the medical man is to help develop, foster and sustain the medical societies and medical interest of his own locality. He has power personally to stimulate his associates and to aid them in organization and in medical progress. In the development of such local interests nothing can be so helpful as the ably conducted and well supported local medical journal. To this he owes a primary obligation, both literary and pecuniary. Its pages should be replete with the recorded experiences of local contributors while, in turn, it should garner for them the best of medical productions from all lands.

To the physician in quest of his second journal we respectfully commend the value and the claims of *The Journal of the American Medical Association.* While it is National in its relations and circulation, it will seek to further his local interests. It will give a continued series of valuable original papers, prepared and submitted by the leading men of the profession, at the annual meetings of the American Medical Association. It will give prominence to translations of the best literature published in foreign languages, and copious selections from the best writings at home and abroad. It will devote itself to the dissemination of clinical instruction, and to the presentation of condensed reports of the proceedings of prominent medical societies. These, with the work of a corps of editorial writers widely representative of the American States, constitute our claim to the second place on the physician's list of medical journals, to which he should add as many others, home and foreign, as he can *thoroughly utilize.*

SANDER & SONS' Eucalypti Extract (Eucalyptol). Apply to DR. SANDER, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Griefswald.

SOCIETY NOTICES.

ACADEMY OF MEDICINE.—

September 30, Dr. B. K. **RACHFORD** will report some "Experimental Studies on Typhoid Fever." **DR. A. M. BROWN** will report a case of "Laparotomy," and present specimen.

October 7, Dr. G. A. **FACKLER** will read a paper on "Calomel as a Diuretic."

CINCINNATI MEDICAL SOCIETY.—

October 1, **DR. GEORGE H. GOODE,** "Diphtheritic Affections of the Eye;" **DR. B. M. RICKETTS,** "Care of the Skin without Soap or Water."

October 8, **DR. F. O. MARSH,** "Recent Anatomical Study of the Spinal Cord, and Paths of Conduction;" **DR. PHILIP ZENNER,** "Clinical Significance of the Tendon Reflexes."

October 15, **DR. F. C. GORES,** ———.

October 22, **DR. THEO. BANGE,** "Milk Inspection of Cincinnati, with Suggestions for Dairy Reform;" **PROF. KARL LANGENBECK,** "Milk Adulteration, and the Milk Supply of Cities."

MIAMI VALLEY MEDICAL MEDICAL SOCIETY.—The twenty-fourth semi-annual meeting will be held at Loveland, Ohio, Tuesday, October 1, 1889, at 9:30 A.M. Papers will be read as follows:

Dr. I. L. Drake, Lebanon, "Fracture of the Spine"—a case.

Dr. C. A. Tribbet, Westboro, "Abortion"—two cases.

Dr. J. O. Marsh, Madisonville, "Fracture of the Patella."

Dr. Geo. B. Orr, Cincinnati, subject to be chosen.

Dr. N. I. Scott, Norwood, "Injuries of the Brain."

Dr. Chas. A. Hough, Lebanon, "How and to what extent shall the Country Doctor practice Antisepsis in Surgery."

Dr. G. L. Kreiger, Madisonville, "Ear-ache as seen in general practice."

DR. I. L. DRAKE, Pres't, Lebanon.
DR. WM. SCOTT, Sec'y, Loveland.

SHELBY COUNTY MEDICAL SOCIETY.—A stated meeting will be held Monday, October 14, 1889, 10 A.M., at the Ray

House, Shelbyville, Ind. The following programme is announced:

"Management of Normal Labor, with Particular Reference to the Employment of Antiseptics in Midwifery Practice," Dr. J. W. Green, Shelbyville.

"The Use of Ergot in Labor," Dr. S. L. Strickler, Boggstown.

"Practical Obstetrics," Dr. John Moffett, Rushville.

"Delivery of the Placenta, with Report of Cases of Adherent Placenta," Dr. M. R. Gilmore, Boggstown.

"Management of Shoulder Presentations," Dr. Edward F. Wells, Shelbyville.

"Post-partum Hemorrhage, with Report of Cases," Dr. J. W. Bowlby, Marion.

"Puerperal Eclampsia, with Report of Cases," Dr. T. R. Rubush, London.

"Management of the Perineum, with Report of a Case of Rupture," Dr. I. W. Trees, Smithland.

The profession is cordially invited to be present.

Dr. R. R. Washburn, President.
Dr. T. C. Kennedy, Sec'y.

The Transmission of Gonorrhœa as an Indictable Offense.—The *Deutsch. Med. Zeit.* relates the following: A man was charged with rape by a 15 year old girl at Steinamanger, but at the trial he was declared not guilty of the charge, as no force was employed. The testimony showed, however, that at the date of intercourse the man was suffering with gonorrhœa, and that afterwards the girl also had gonorrhœa, and on this basis the prisoner was charged with inflicting severe bodily injury upon the girl, was found guilty and sentenced to one month imprisonment. The two higher courts approved this, but thought the punishment was too light; one court lengthened the term to six months; the other and highest authority thought it was still not enough, and increased the punishment to one year.

While such a proceeding is very unusual, it is not unjustifiable, and should the example be followed, the prisons would soon need enlargement. For obvious reasons there is no fear that such will be the case.—*Weekly Med. Review.*

The Lancet-Clinic and *Obstetric Gazette* to one address one year for $5.

SOUTH-WESTERN OHIO MEDICAL SOCIETY.

First Semi-Annual Meeting, Burnet House, Cincinaati, October 9 *and* 10, 1889.

PRELIMINARY PROGRAMME.

Wednesday, October 9, 10 *A.M.*

Address of Welcome, Dr. C. G. Comegys.

Response and President's Address, Dr. W. A. Campbell, of Eaton.

Report of Organization.

Address, "Medical Societies and Organization," Dr. J. C. Culbertson.

"Rhino-plasty," Dr. Geo. Goodhue, of Dayton. Discussion opened by Prof. P. S. Conner.

"Congenital Luxation of Both Hip-joints" (with exhibition of the case), Dr. Geo. W. Ryan, of Cincinnati. Discussion opened by Dr. Chas. Seth Evans.

"Report of a Case of Fracture of the Clavicle and Scapula," Dr. Read L. Bell, of Springfield. Discussion opened by Prof. E. W. Walker.

"Report of a Case of Foreign Body in the Larynx" (with exhibition of the specimen), Dr. A. B. Thrasher, of Cincinnati. Discussion opened by Dr. Max Thorner.

"Oz. Doses of the Iodide of Potash in Hereditary Syphilis," Dr. B. Merrill Ricketts, of Cincinnati.

"Treatment of Hemorrhoids and Fistula," Dr. Longstreet Taylor, of Cincinnati. Discussion opened by Prof. W. W. Dawson.

"An Unusual Case of Sarcoma—Operation," Dr. Willis W. Hall, of Springfield.

Wednesday, October 9, 3 *P.M.*

"Nasal Catarrh," Dr. T. V. Fitzpatrick, of Cincinnati.

"Hypertrophy, Atrophy and Deviation of the Nasal Septum" (with exhibition of new instruments), Dr. Carl von Klein, of Dayton. Discussion opened by Dr. A. B. Thrasher.

"Otitis Media Chronica," Dr. C. W. Dodd, of Cincinnati.

"Color-Blindness and Defective Vision among Railroad Employes," Dr. Ben. F. Clark (Surgeon C. H. & D. R.R.).

"Ocular Headaches," David DeBeck, of Cincinnati.

Wednesday, October 9, 7:30 *P.M.*

"Discussion on Diphtheria." Names

of participants and details in final programme next week.

Thursday, October 10, 10 *A.M.*

"Some Points in the Diagnosis of Coma," Dr. W. J. Conklin, of Dayton.

"Treatment of 'Nervousness,'" Dr. Philip Zenner, of Cincinnati.

"Digitalis in Acute Pneumonitis in Infants," Dr. A. D. Murphy, of Pleasant Plain.

"General Treatment of Pneumonia in Infants," Prof. F. Forchheimer. General discussion.

"Malarial Fever—its Practical Treatment," Dr. C. M. Wilson, of Washington C.H. Discussion opened by Dr. Louis Schwab.

"Therapeutics of Antipyrine," Dr. Allen W. Ashburn, of Batavia.

(Title not yet received.) Dr. H. M. Brown, of Hillsboro.

Thursday, October 10, 3 *P.M.*

"Abortions—with Report of a Case," Dr. A. C. Hawley, of Eaton. Discussion opened by Dr. Gustav Zinke.

"A Case of Ovariotomy—with Complications," Dr. Chas. A. L. Reed, of Cincinnati. Discussion opened by Dr. Rufus B. Hall.

"Puerperal Eclampsia," Dr. R. T. Trimble, of New Vienna. Discussion opened by Prof. Thad. A. Reamy.

"Paper on Abdominal Surgery," Dr. Rufus B. Hall, of Cincinnati.

"Ethics, Physics and the Physician," Dr. Sidney Stevens, of King's Mills.

A number of others promised, but titles not received.

The Committee earnestly request authors who have not yet sent in the titles of their papers to do so *within the next four days*, so that a complete final programme can be submitted next week. The Committee also earnestly request volunteers to open the discussions on the papers here submitted.

David DeBeck, M.D., Sec'y.
139 W. Ninth St., Cincinnati.

The Directory of the Royal Elizabeth School, in Berlin, has entered a strong protest against the practice of allowing young girls of doubtful musical ability to spend hours at the piano, to their own physical detriment and the torture of their hearers.

AMERICAN RHINOLOGICAL ASSOCIATION.

The seventh annual meeting of the American Rhinological Association will be held at the Palmer House, Chicago., Ill., October 9, 10, and 11, 1889.

PROGRAMME.

FIRST DAY—WEDNESDAY, OCTOBER 9.

Forenoon Session at 10 *O'clock.*

1. Reading minutes of council meeting.
2. Roll call.
3. Address of President.
4. Remarks upon the President's address.
5. Balloting for candidates for fellowship.
6. Report of a Case of Brain Abscess, emptying into the Naso-Pharynx. By Dr. L. B. Gillette, Omaha, Neb. Discussion.
7. The Reason why so many Physicians fail in Treating Chronic Rhinitis. By Dr. Thomas F. Rumbold, St. Louis, Mo. Discussion.
8. Appointment of Nominating Committee by the President.

Afternoon Session at 3 *O'clock.*

1. Subject 1. Conjunctival Troubles the result of Nasal Disease. By Dr. J. G. Sinclair, Nashville, Tenn. Discussion.
2. Ocular Reflex Symptoms in Nasal Disease. By Dr. C. H. Moore, Indianapolis, Ind. Discussion.
3. Therapeutic Measures in Rhinology. By Dr. N. R. Gordon, Springfield, Ill.
4. Paper. By Dr. A. B. Thrasher, Cincinnati, O.

SECOND DAY—THURSDAY, OCTOBER 10.

Forenoon Session at 9 *O'clock.*

Business meeting.

1. Report of Secretary and Treasurer.
2. Report of the Librarian.
3. Report of the Nominating Committee.
4. Report of other committees.
5. Miscellaneous business.

At 10 *O'clock.*

6. Subject 1. Report of the Insane Asylum Committee appointed at last meeting to make Rhinal Examinations and Report, "On the Relation of Rhinal Inflammation, to Mind Affections." Dr. Thos. F. Rumbold, St. Louis, Chairman of Committee. Discussion.

7. Reflex Symptoms of Rhinal Diseases, with Reports of Cases. By Dr. C. L. Dreese, Goshen, Ind. Discussion.

8. The administration of Quinine where there is Defective Hearing. By Dr. E. L. Sessions, Hilsboro, Tex. Discussion.

Afternoon Session at 3 *O'clock.*

1. Rapid Operations in Removing Foreign Bodies of the Nasal Chambers. By Dr. Carl Von Klein, Dayton, O. Discussion.

2. Surgical Treatment in Diseases of the Nose. By Dr. A. De Vilbiss, Toledo, Ohio. Discussion.

3. Catarrhal Neuralgia. By Dr. A. G. Hobbs, Atlanta, Ga. Discussion.

THIRD DAY—FRIDAY, OCTOBER 11.

Forenoon Session at 10 *O'clock.*

1. Subject 1. Constitutional and Hygienic Treatment of Rhino-Pharyngeal Inflammation. By Dr. R. S. Knode, Omaha, Neb. Discussion.

2. The Prescribing of Sprays to be used by Patients. By Dr. Frank D. Green, Louisville, Ky. Discussion.

3. Asthma is a Neurosis, or, the Etiology, Pathology and Treatment of Asthma. By Dr. J. G. Carpenter, Stanford, Ky. Discussion.

4. Reflex Inflammation of the Nose and Throat. By Dr. E. L. Siver, Fort Wayne, Ind.

5. Paper by Dr. Eli McClellan, Chicago, Ill. Discussion.

6. Climatology. By Dr. T. F. Rumbold, St. Louis, Mo. Discussion.

7. New instruments by Fellows.

8. Report of Auditing Committee on Treasurer's account.

9. Balloting for officers for the ensuing year, and for a member of the Council, and their introduction into office.

10. Balloting for place of next meeting.

11. Miscellaneous business.

12. Adjournment.

OFFICERS:

President—John North, M.D., Toledo, Ohio.

First Vice-president—A. G. Hobbs, M. D., Atlanta, Ga.

Second Vice president—A. B. Thrasher, M.D., Cincinnati, O.

Secretary and Treasurer—R. S. Knode, M.D., Omaha, Neb.

Librarian—N. R. Gordon, M.D., Springfield, Ill.

Members of Council—Thos. F. Rumbold, M.D., St. Louis, Mo.; J. G. Carpenter, M.D., Stanford, Ky.; A. B. Thrasher, M.D., Cincinnati, O.; J. G. Sinclair, M. D., Nashville, Tenn.

The profession is cordially invited to attend the meetings of the Association.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending Sept. 21, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	...	..	...	..	...	..	...
2nd	...	..	...	..	...	..	...	..	...	..	...
3rd	...	..	.	..	...	..	8	1	...	..	...
4th	...	..	1	..	1	..	1	..	...	..	...
5th	...	..	...	..	...	..	...	..	...	..	...
6th	...	..	...	..	...	..	1	..	...	..	...
7th	...	..	...	..	...	..	...	..	...	..	...
8th	...	..	...	..	...	..	..	..	...	..	..
9th	...	..	...	..	...	..	1	..	...	..	...
10th	...	..	...	..	...	..	1	..	...	..	...
11th	...	..	...	..	...	..	...	..	...	..	...
12th	...	..	...	.	...	..	...	1	...	1	1
13th	...	..	...	..	...	..	...	..	...	..	...
14th	...	..	...	..	...	..	...	..	...	..	...
15th	...	..	...	..	...	..	2	..	...	..	...
16th	...	..	...	..	...	..	...	..	...	..	...
17th	...	..	...	..		..	1	..	...	..	...
18th	...	..	...	.	...	..	1	..	...	..	...
19th	...	..	..	..	...	..	1	..	...	..	...
20th	..	..	...	..	...	..	...	1	...	..	...
21st	...	..	...	..	...	..	...	..	...	1	...
22nd	.	..	...	..	...	..	...	..	...	..	...
23rd	...	..	.	1	...	..	6	..	...	1	...
24th	...	..	...	..	...	..	2	1	...	..	...
25th	...	..	...	..	...	..	5	4	...	..	...
26th	...	..	...	..	...	..	...	..	...	..	...
27th	...	..	...	..	...	..	...	1	...	..	...
28th	...	..	1	..	...	..	5	1	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	1	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	1	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	..	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	...	..	2	1	1	..	36	10	...	4	1
Last week	1	2	1	..	4	..	18	4	...	3	3

The following is the mortality report for the week ending September 21, 1889.

Cholera Infantum	1
Diarrhœa	3

Dysentery	1
Entero-Colitis	2
Other Zymotic Diseases	18—25
Cancer	4
Phthisis Pulmonalis	13
Other Constitutional Diseases	6—23
Apoplexy	1
Bright's Disease	1
Bronchitis	4
Convulsions	5
Heart Disease	3
Pneumonia	4
Other Local Diseases	20—38
Old Age	1
Other Developmental Diseases	4— 5
Accidental	2
Homicidal	1— 3
Deaths from all Causes	94
Annual death rate per 1000	15.04
Deaths for corresponding week in 1888	106
Deaths for corresponding week in 1887	91

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 30 observers (embracing 26 counties) show the following diseases to prevail for the week ending Friday noon, September 20, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.	REMARKS.
Diarrhœa	17	46	Diphtheria reported by observers at Gillespieville, Russelville, Rio Grande, Caldwell, and near Troy. Reported by health officers: Cincinnati, 10 deaths; Toledo, 14 cases, 2 deaths; Xenia, 12 cases; Middletown, 15 cases; Fostoria, 1 case; Columbus, 6 cases, 1 death. Scarlet Fever reported by observers at Rio Grande, Rocky River, Troy. Reported by health officers: Columbus, 6 cases; Toledo, 1 case; Salem, 1 case; Findlay, 1 case; Defiance, 2 cases; Lima, 2 cases; Millersburg, 2 cases; Fostoria, 3 cases.
Intermittent Fever	15	35	
Dysentery	15	26	
Typhoid Fever	10	14	
Tonsillitis	10	12	
Bronchitis, acute	9	16	
Cholera Morbus	8	17	
Remittent Fever	7	21	
Rheumatism (acute)	6	9	
Typho-Mal. Fever	5	14	
Diphtheria	5	11	
Consumption (Pul.)	5	6	
Cholera Infantum	4	4	
Scarlet Fever	3	7	
Pneumonia	3	3	
Pleurisy	3	3	
Whooping Cough	2	4	
Erysipelas	2	2	
Croup, membranous	2	2	
Measles	1	1	
Puerperal Fever	1	1	
Cerebro-Spin. Men.	0	0	

Typhoid Fever reported by observers at Summerfield. Maineville, Carrollton, Perrysville, Dodgeville, West Milton, Caldwell, Lovetts, Rio Grande, and Sharonville. Reported by health officers: Cincinnati, 4 deaths; Toledo, 1 death; Fostoria, 1 case; Millersburg, 2 cases,

C. O. PROBST, M.D., Secretary.

Selected.

CONSTITUTIONAL NATURE OF CANCER.

Abstract from an Address delivered before the British Medical Association

By JOSEPH COATES, M.D.

[*British Medical Journal.*]

When we come to the question of constitutional susceptibility to cancer, we encounter many difficulties, partly because the causation of cancer is exceedingly obscure, and partly because till late years the delimitation of this form of disease was very indefinite; partly also, as we shall see, because in the process itself there are involved somewhat contradictory phenomena. As the constitutional nature of cancer is a matter of great consequence, it may be well, even at the expense of a little extra time, to look some of these difficulties in the face, and endeavor to formulate the position.

Cancer, in modern pathology, means a malignant epithelial tumor. The multiplying epithelial cells take origin from the existing epithelium, but do not respect the normal bounds, growing into and penetrating the underlying and surrounding tissues. The tumor hence takes origin in epithelium or epidermis, and its seats are the skin, mucous membranes or canals, and epithelial glands, to which may be added as rare situations the cavities of the brain, the pleura, and the peritoneum. The cancer always begins in a definite local center, and spreads from that. It is, I believe, a fact of universal application that, however widespread may be the ultimate extension of the growth, it is all to be traced more or less directly to the primary local nest, the secondary tumors being in all cases grafts from the primary one. This relation to the primary tumor is frequently evidenced by the structure of the secondary ones, as these usually imitate very closely in their details the special characters of the original growth. It will be seen from this that cancer is primarily in all cases a local growth, and in speaking of susceptibility this must be taken into account.

I have mentioned that cancer consists in an excessive growth of epithelium, but it is a curious and apparently contradictory fact that it occurs most frequently when the natural forces of the body may be supposed to be diminishing. It is a disease mainly of the latter half of life, and it occurs with particular frequency in organs which undergo a specially early senile involution—the mamma and the uterus. The disease thus connects itself with senile changes, in this respect presenting some analogies with atheroma. There is, however, this distinction, that cancer is not common in advanced life, being rather a disease of vigorous middle or later life.

In regard to the connection of cancer with senile changes, a very ingenious explanation has been suggested by Thiersch, to the effect that the overgrowth of epithelium may be due to a falling off in the resistance of the neighboring tissues rather than an excessive vigor of the epithelium. The epithelial tissues are, as a rule, peculiarly active all through life, multiplying so as to make up for the losses by desquamation or secretion. Under normal conditions the multiplying cells are restrained from penetrating downwards by the active underlying structures, chiefly the connective tissue. If this activity diminishes then the epithelium may take advantage of this circumstance and assume malignant characters in its growth. I do not think this is a sufficient explanation of all the facts, but it seems not improbable that it enters into the somewhat complicated problem. There is no doubt that the seat of a cancerous tumor has a great deal to do with the vigor of its growth. A cancer which grows slowly in the wall of the stomach, for example, sometimes grows with extraordinary vigor when transplanted to the liver. It is very possible therefore that the condition of the tissues underlying the epithelium may have an important bearing on the origin of the tumors.

We have, then, two possible forms of constitutional susceptibility to consider, namely, an excessive tendency to growth on the part of the epithelial tissues, and a diminished power of resistance in the underlying structures.

The latter condition, due in many cases to senile changes, will very frequently be local. I have already alluded to the fact that organs, such as the mamma and the uterus, which undergo a senile involution at a specially early period, are prone to cancer. It is as if the constitution of the organ, as altered by the process of involution, rendered them specially susceptible. We have also such facts as the occurrence of epithelioma in cicatrices, indicating that the existence of an imperfect connective tissue instead of that of the true skin renders the part specially susceptible to cancer. Again, the history of many cancers of the stomach, for example, is that of a prolonged dyspepsia. This implies a chronic inflammation of the stomach, and a new formation of dense connective tissue in its wall. We may suppose that this change in the constitution of the wall will, as in other cases, render it unduly susceptible. The same applies to cancer of the lip and of the scrotum, induced, as they generally are, by special irritations. In so far, therefore, as senile or inflammatory changes in the underlying connective tissue influence the causation of cancer we may suppose that their action is local.

When we turn to the other factor the relations are scarcely so definite, this factor being a tendency to excessive activity in the epithelial structures. The cancer depends on a local manifestation of this tendency, but the tendency may itself be either general or local. We have seen that senile changes in arteries, although they may be extensively present, lead to the occurrence of atheroma only in certain localities. We may suppose in the case of cancer that there may be either a general or a local tendency to excessive growth of the epidermic or epithelial structures, which comes into effect as the cause of cancer when other causes coincide. There are several facts in connection with the diseases of the skin which indicate that the epidermis as a whole may present special constitutional susceptibilities. One of the most interesting of these is the disease ichthyosis, in which the epidermis presents an excessive or peculiar growth. The constitutional character of this is shown by the very striking manner in which it is transmitted by inheritance. We may suppose then, in some cases, a special tendency in the epidermis as a whole, or in the epithelium of the alimentary canal as a whole, towards cancerous development. We should expect such a tendency to be inherited. Whether it may exist both in the epidermis and in the epithelium, and whether it may extend to the epithelial glands, is much more problematical. The position of inheritance in the causation of cancer might be expected to throw some light on the subject. We should expect, if the tendency is confined to the epidermic structures on the one hand, or to the epithelial structures on the other, that when a cancer is inherited its situation would only vary from one locality of these structures to another, as from one part of the skin to another, or one part of a mucous canal to another. These are points, however, which I do not think are sufficiently elucidated, especially in view of the great divergence of opinion which exists in regard to the influence of inheritance on the causation of cancer.

There is one thing, however, which I may mention in regard to the constitutional tendency of the epithelium to the development of cancer — namely, that among the epithelial glands great differences of susceptibility apparently exist. The hepatic cells, for instance, I believe, very seldom, if ever, give rise to cancerous growths, the rare primary cancers of the liver taking origin rather in the ducts than in the parenchymatous cells. In contrast with this is the frequency of cancer in the mamma.

I am conscious that much of what I have been saying in regard to cancer is vague and unsatisfactory, but it is what has occurred to me, on looking closely at the facts, as the only possible modes in which constitutional susceptibility can exist. I have thought it worth while to formulate these considerations, because I am aware of an undercurrent of belief in a vague general constitutional susceptibility which disappears when we look at the facts.

The belief in a general constitutional susceptibility is associated in the minds of some with the frequent recurrence of cancer after removal, as if this were evidence of an ineradicable tendency to cancer. I believe this to be an entirely mistaken view. I am convinced that, except in the very rare case of the coexistence of two primary cancerous tumors in the same person, all cancerous growths are directly connected with the primary local tumor. When a cancer recurs, it is because some part of the growth has been left in. The recurrence is in the neighborhood of the original tumor, or in the connected lymphatic glands—this itself indicating a direct connection with the primary tumor. When we consider that a cancer consists of vigorously growing epithelium, which has a special tendency to propagate into the lymphatics, and so to send offshoots or grafts into parts around, we can scarcely be surprised that complete eradication is so difficult. When once the epithelium has broken bounds, and has been transplanted to parts which may be more favorable to its growth than its natural site, then it will frequently be impossible to determine the limits of its extension.

I have said so much as to the constitutional tendency to cancer. The determining cause is frequently stated to be a local injury or irritation. Such injury or irritation may produce changes in the connective tissue such as I have already referred to, and it is possible that the coexistence of the two factors already considered may determine the occurrence of the disease. It is possible also that injury or irritation, while damaging the more inert connective tissue, may stimulate the more active epithelium.

I need hardly add that cancer frequently induces a very serious constitutional state, leading on to a fatal issue. The so-called cachexia is, however, a secondary result of the cancer. This is manifest enough in the case of external cancers. We are familiar with the fact that cancer of the mamma or of the lip or larynx frequently shows itself in persons of robust general health, and that the constitutional decadence is often the result of a long struggle between the vigorous vitality of the individual and the inroads of the disease. The cancer leads to these effects by ulceration, by using up the nutritious material of the body in its growth, and by extending to parts which are important in the economy. There is the important distinction in these secondary effects from those in tuberculosis, that, as cancer is not associated with a specific microbe, there are no poisonous alkaloids evolved, and there is consequently no fever, as a rule. In the case of internal cancers, which are concealed from view, the constitutional effects may be manifest before the local cancer is discovered. It is not infrequently the office of the pathologist to find a large and old ulcerating cancer of the stomach, whose existence had by no means been certainly distinguished during life.

CONCLUSION.

The subject on which I have entered is an exceedingly wide one, and I am only controlled in my efforts to expound it by considerations of time and space, as well as of your patience. I had intended, for instance, to enter more particularly on the subject of immunity to certain diseases, as determined by constitutional susceptibilities, a subject already hinted at in speaking of the susceptibilities of the liver, and a subject also which has received much elucidation in my mind from the interesting observations, already referred to, of Metschnikoff, and of the no less remarkable investigations of Pasteur into the nature of certain vaccines. I must however conclude my remarks, but before doing so I may, in a sentence or two, sum up the deductions which appear to me to follow from what I have adduced.

The constitution or frame of a man or animal is made up of a multitude of local items, each of which is liable to variation in structure and function within normal limits. These variations form the *differentia* of species and of individuals, and they are generally subject to inheritance. Susceptibility to disease varies greatly in different men and animals, and this variation is correlated to the structural and functional peculiarities which determine the differences of constitution. The individual organs of the same animal show very different degrees of susceptibility to certain diseases, as is shown by the relations of the liver and lungs of man to tuberculosis, syphilis, and cancer. In different individuals of the same species of animal, also, the same organs, such as the lungs or liver, vary greatly in susceptibility to disease. Finally, as such diseases as tuberculosis and cancer are, in man, primarily local, susceptibility to them must be related to local constitutional peculiarities in the situations primarily attacked.

TREATMENT OF SICK HEADACHE.—Dr. W. Gill Wylie recommends that so soon as the first pain is felt, the patient is to take a pill or capsule containing one grain of inspissated ox-gall and one drop of oil of gaultheria every hour, until relief is felt, or until six have been taken. Dr. Wylie states that sick headache as such is almost invariably cut short by this plan, although some pain of a neuralgic character remains in a few cases.—*Memphis Med. Monthly.*

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ON PILOCARPINE IN DEAFNESS.

[*British Medical Journal.*]

Dr. Fields thinks the remedy useless in senile deafness and attributes the many failures of the treatment reported due to the fact that the patients have been over sixty years of age. He says:

"I would ask the profession to suspend their judgement for a time on this question, as to the efficacy of pilocarpine injections in labyrinthine disease, and even in chronic catarrh of the middle ear without Eustachian obstruction. I have had more successes than failures in my own selected cases, and I am continually hearing of encouraging results from others."

He reports three new cases.

"1. A medical man consulted me some time ago, and said he was so deaf that he was afraid he must give up practice. I suggested he should try pilocarpine injections for six weeks. He now writes (July 7th): 'I used the nightly injections for six weeks, with almost a complete cure; you cannot think how thankful I am for the restoration of my hearing.'

"2. A lady, aged thirty-four, very deaf for fifteen years, writes: 'I am glad to say I have received much benefit from your treatment. I can now hear general conversation and take part in it; I can also hear musical instruments playing in the streets and the minister from the pulpit, and also have less noise in my ears.'

"3. A lady who had been deaf seventeen years, unable to hear without a trumpet, writes: 'On the first day I was injected I was unable to hear a watch or clock tick. On the ninth day, noticed sound of my own voice; on the fifteenth day, could hear my own watch tick for the first time for eight years; twenty-second day, noticed immense improvement, heard bells, knocks, watch two inches distant from right ear, and faintly at left; fiftieth day, continued improvement; fifty-seventh day, heard sermon with trumpet; sixty-fourth day, heard sermon without trumpet.' She remarks on the general result: 'Immense improvement in hearing; can now hear all the clocks in the house tick. Much easier to maintain conversation with one person. Much more conscious of sounds in the house.'"

Dr. H. M. Jones says in my "Practitioner's Handbook on Diseases of the Ear," is the following: "It is a question if we avail ourselves of the action of pilocarpine as frequently as we should. It is probably the most certain and powerful of all our drugs in cases suitable for its administration, where the reduction of vascular tension is our object, and in which we desire to check effusion and control the tendency to extravasation. These are exactly the conditions in the earlier stages of Ménière's disease and other forms of vertigo in which labyrinthine effusions are threatened. I may add that I first used pilocarpine subcutaneously in labyrinthine vertigo in 1879. I have since (as in a remarkably successful case of typical Ménière's disease, referred to in my 'Handbook' in 1885) repeatedly advised and resorted to the use of pilocarpine in labyrinthine vertigo. My success has been marked in some instances, and failure as complete in others has followed its employment. I may say in conclusion, that notwithstanding my unfavorable relations with this drug in one memorable case, I consider as a reducer of vascular tension, especially in ocular hypertension and effusion; when given subcutaneously in appropriate cases, it stands unequalled, and that prudently administered, it is as safe a remedy as any other powerful therapeutic agent we are daily using for other therapeutic indications."

Dr. H. Barrett has used it in four cases. These occurred in the persons of three gentlemen, whose ages varied from forty-five to twenty-three, and one lady, aged twenty-one. In each case the treatment was continued for six weeks, and in each of the male cases material improvement was effected. In the lady's case, he could not find any worth mentioning. It was not merely that he detected improvement in the three male patients by the usual methods of testing, but they expressed themselves as hearing with much greater facility.

His experience with the small number of cases mentioned led him to believe that the full benefit of the treatment could not be gained in a less time than six weeks; and it is probable that in many cases an even longer period would be better.

Lactose as a Diuretic.—Professor Germain Sée has made a long communication to the Academy of Medicine on the employment of lactose in the treatment of diseases of the heart, the conclusions of which may be summarised as follows: Lactose constitutes the most powerful diuretic, and, at the same time, the most inoffensive. It is lactose alone which gives to milk its diuretic property. The other principles of milk, particularly the water and the salts, have no manifest or useful action; the chloride of sodium adds nothing to the polyuria due to the sugar of milk, and the salts of potash themselves play only a very limited part. Milk, taken in doses of two liters, produces diuresis; but in doses of four liters, each of which contains fifty grams of lactose, it determines also a very pronounced glycosuria, a transitory diabetes, a portion of 200 grams of sugar thus absorbed being eliminated by the urine. There is likewise a considerable excretion of urea, indicating a destruction of the albuminates. There is, then, at the same time, glycosuria and azoturia. The use of sugar of milk obviates these inconveniences and dangers; 100 grams of lactose in a mixture produce an enormous diuresis, which may not be obtained with four or five liters of milk. With lactose there is neither glycosuria nor azoturia. In milk the action of lactose is impeded by the caseine and fat. Lactose acts with certainty in dropsies of cardiac origin, but in a doubtful manner, or even has no action, in dropsies of renal origin. In affections of the heart it fails only when the kidney becomes granular and when the albumen rises to sixty centigrams or to one gram per liter. So long as the albumen remains in this minimum proportion the result is favorable. Lactose is in general well supported, whereas milk is not always acceptable to patients. Lactose has another great advantage over milk in permitting patients to take all kinds of nourishment, as it does not overload the stomach as milk does. Professor Sée considers that we have, in lactose, *the* diuretic of affections of the heart at the asystolic period, and the true curative means of dropsies of cardiac origin, even those which have resisted all other polyuric agents; but it is powerless to relieve the dyspnœa resulting from heart disease. It should, therefore, be seconded by the iodide of potassium, the remedy *par excellence* for this complication.—*London Lancet.*

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CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, October 5, 1889. *WHOLE VOLUME LXII.*

Original Articles.

PROGNOSIS IN PULMONARY TUBERCULOSIS.

A Paper read before the Mississippi Valley Medical Association, Fifteenth Annual Meeting, at Evansville, Ind., September 10, 1889.

By W. C. Chapman, M.D.,

Professor of Diseases of Throat and Nose and Physical Diagnosis, Northwestern Ohio Medical College, Toledo, O.

Two questions are asked by every patient: what is my disease? and can I be cured? Having answered the first, it is not so easy to satisfactorily answer the latter. Many factors combine to render this the most difficult of all the problems to be solved by the physician; and yet it is the one of greatest importance to the patient. On the answer given hangs his own destiny and that of those dependent upon him. Prognosis should be, therefore, the result of careful deliberation after exhaustive examination with a full appreciation of intervening possibilities which tend to modify results.

I shall devote this paper to a consideration of the question of prognosis with reference to pulmonary tuberculosis. I do this for the reason that during these latter years there has been much inquiry into the whole question of the etiology and treatment of this disease, and I fear many of us, especially the laity, are building false hopes when considering the advances said to have been made towards rendering prognosis more favorable.

We all know that tuberculosis is the greatest destroyer of human life known to medicine; that in former years a person was doomed to die because of a supposed inheritance from ancestry; that no medicine could cure and no treatment could stay the ravages of the dread disease: and yet we find that persons supposed to be past help have recovered, and the investigations of the post-mortem table disclose the fact that many old cicatrices are found in lungs of persons dying from other causes than consumption. The discovery of the tubercular bacillus has also given new light as to the etiology; no longer do we wander in the mists of uncertainty, but we know that we have an entity able to implant itself in suitable soil for development. The question now is to dislodge or nullify effects so that nature may perform a cure. We have abundant evidence that she frequently performs this part well. If, then, some cases of tuberculosis recover, why is it that more do not? Consumption still remains to frighten and kill relentlessly.

Considering the question of prognosis broadly, I would say in consumption it is unfavorable, but more in detail I would say frequently most favorable. In order, then, to arrive at a just conclusion in all examinations of diseased lungs, it is well to classify our cases so that they may be studied more thoroughly and conclusions arrived at with greater accuracy. Permit me to suggest the following as a classification of all cases, not for treatment or pathological study, but to assist in arriving at a satisfactory prognosis:

First.—When there are premonitory symptoms of the disease, before a development of well-marked lung impairment.

Second.—After implantation and growth of tubercular bacilli with physical signs of solidification.

Third.—When the presence of cavities demonstrates that softening and other retrograde changes have caused structural degeneration.

An opinion as to the probable termination of a case must be governed by the stage in which the disease is observed. Patients belonging to the first class may expect to receive a more favorable prognosis than those who are placed in the other two classes, for the proper time to combat the disease is to prevent, if possible, implantation of the disease-breeding germs.

Considering the first class of cases,—"when there are premonitory symptoms of the disease before a development of well-marked lung impairment"—we are able to take a more hopeful view of the case than was possible a few years ago, for the reason that well-directed treatment may in a large number of instances overcome natural tendencies to a development of the disease. This is made possible by a belief which is gaining ground, that heredity has much less to do with the implantation of the disease than was formerly supposed. I am firmly of the opinion that no tubercular disease is a direct inheritance from parents to children, but that there is an anatomical conformation with a consequent physiological idiosyncrasy which may be considered a family inheritance and does doubtless present suitable conditions for a development of the disease. Those presenting such peculiarities were said to be scrofulous, and the long dark eyelashes and rosy complexion, beautiful to look upon, were supposed to be a distinctive sign of developing phthisis. Conjoined with these characteristics is often seen the contracted thorax, the inwardly and forwardly rotated shoulders, and the stooping gait. In such cases the skin is excessively thin and the mucous membranes thin, easily destroyed, and susceptible to other pathological changes. Hemorrhages occur without apparent cause and frequently, and the nervous organism is very sensitive, in the female leading to hysteria and in the male to irascibility. Such are the marks of inherited temperament, which will easily succumb to disease if exposed to specific cause. When patients present themselves for treatment with these peculiarities they do so because there has been made apparent to themselves or friends a lack of muscular power or nervous energy, with consequent loss of appetite and body weight. Possibly an irritating, hacking cough may be a pronounced source of discomfort. No expectoration nor night sweats nor diarrhœa have added complications, but it is said as of old "there is fear that the patient is going into a decline, as did the father or mother before."

From neglected cases pictured above spring the numberless fatal results which the world deplores. The soil is preparing so that when the seed is sown, fruitful will the harvest be. In a paper read before the Ohio State Medical Society last year, I endeavored to show that a faulty method of respiration due to inherited or acquired peculiarities was the prime factor that allowed of the lodgment and development of the tubercular germ. Prognosis at this stage I certainly believe is most favorable, if the patient is seen early and the directions of the advisor are carefully and fully carried out. A large percentage of such may be prevented from passing into the worse condition I shall speak of hereafter, and I believe that a majority may be permanently cured.

Without taking your time to present my reasons for concluding that faulty respiration with consequent insufficient expansion of the lungs leads to stasis, and that this is the forerunner of coagulative necrosis, leading finally to caseation, I assert my belief that this condition is present in the greater number of those who are considered as suffering from incipient tuberculosis.

Granting that the views of a majority of clinicians and pathologists are correct in ascribing the development of phthisis to an implantation of the germs of certain micro-organisms, the only point which has been difficult of explanation is the accounting for the fact that, whilst it is known that such parasitical bodies abound almost everywhere, and that vast numbers of them are daily taken into the human organism in water, food, and air, yet in the majority of instances they die and pass away, whilst in others they take root and flourish to full fruition. Future study will, in all probability, demonstrate that the diathesis briefly stated in this paper is the agency whereby is supplied the proper soil, in a condition to be appropriated, into which they implant themselves, and, as do all parasites, develop and multiply at the expense of the tissues, or of the food supply intended for the sustenance of those tissues. "So long as the tissues of a higher animal are healthy and well nourished, the common forms of septic bacteria cannot thrive in immediate contact with it. They can only exist in the intestines, etc., because they find accumulations of lifeless fluids which offer them a suitable nidus. Active living tissues may be said to have antiseptic power, *i.e.*, are able to destroy septic bacteria; and it is only owing to this bactericide power of our textures that we can, with immunity, breathe into our lungs the atmospheric air often crowded with these organisms, and swallow multitudes of them with our food. But for it every wound would become putrid, every breath might admit deadly germs to our blood." (Yeo, "Manual of Physiology," page 90.) Granting that this is always true in non-pathogenetic bacteria, is it not also true when the so-called pathogenous bacteria invade certain structures? It has been constantly claimed that the bacillus of tuberculosis can of itself, in healthy tissue, implant itself and so generate disease. This assumed fact is here denied. No healthy lung tissue can be susceptible to the invasion of the organism unless previously there has been a local necrosis forming suitable environment for the life of the parasite. "Clinical experience would seem to indicate that the tubercle bacillus is no ordinary bacterium, such as may enter and affect any organism without distinction. It would seem rather as if infection occurred only when a definite predisposition exists, or where a considerable quantity of virus is introduced. This predisposition may be local as well as general. The local predisposition may perhaps depend mainly on inflammatory change. . . . . Koch finds that the bacilli grow very slowly, and after inoculation proceed to develop and multiply only when they reach a spot where they are not subject to much mechanical disturbance or displacement. From this we may understand how it happens that many persons, though again and again exposed to the invasion of tubercle bacilli, yet remain uninfected. It is, moreover, conceivable that individuals, in whose tissues inflammatory changes have already occurred, are those who are most disposed to tuberculous infection." (Ziegler, "Text-Book of Pathological Anatomy," pages 180–181.) It is, therefore, plain to be seen that, although the tubercle bacillus is classed as a pathogenetic bacterium, there must be a preparation necessary in the locality more commonly selected for the development before such development can occur. "All that is necessary is that the bacterium should reach a spot that affords the conditions for its development. If this occurs, it multiplies and forms colonies and swarms." (Ziegler, page 289.)

In order that a favorable prognosis may be verified, what steps should be taken to sterilize or remove the soil which has been preparing for germ implantation? We come back now to the old, old treatment, and say everything must be in the way of nutrition. Koch's discovery or pathological study has revealed nothing new as relates to therapy. Nutrition must come as a physiological necessity; overwork, over-breathing and over-feeding must be avoided. By work is meant exercise, mental or physical, mountain climbing, walking and horseback riding —all good in their way, but easily overdone. Beefsteak and milk and oysters are nutritious when given in proper quantity and well prepared. Enough for one person may be not enough for another. Judgment must always dictate the sufficient quantity. To place enormous work upon an enervated lung is worse than dangerous; over-breathing easily results from a desire to be too radical and hasty. Take time for cure; be careful not to tire the lungs. Mental activity and rest must assist nature in curing the patient. Surroundings must be pleasant; the consumptives' hospital must be ignored. Consultation between patients similarly affected must be interdicted. The incipient tubercular patient is not as yet sick; your desire is to prevent him getting so. A removal from home permanently does not as a rule assist to cure. I know the climatic treatment is considered favorable to, and even curative of, consumption. I believe more injury is done to the cases we have been considering, by the feeling of exile and the absence of home comforts and nursing, than can be offset by any so-called advantages of climate. If the patient's home is one of great discomfort and insalubriety, then a change may be necessary; otherwise occasional changes of scene and atmosphere may be most potent for good. Daily expansion of lung, either within or without the pneumatic cabinet, conjoined with healthful food and exercise, will render a prognosis favorable in a majority of cases belonging to the class we have been considering.

In cases of the second class, where implantation and growth of the tubercular bacilli have taken place, and physical examination develops solidification in a portion of the lung, there is a much graver condition, in which the prognosis must be more unfavorable. A majority of cases will not recover, no matter what treatment may be instituted. After the discovery of the causative agent of the disease it was believed that remedies might be employed which would destroy it before destruction had resulted from its presence. All who have experimented clinically have been disappointed, and it is to-day safe to say with Beaumetz that "we are reduced to alimentation and respiration of pure air in this disease." Thus have we swung around the circle in attempts to use medicines or procedures supposed to be microbicide in action, coming back to pure air, freely inhaled, and proper nutritious food, so long the stand-byes of the profession. Gas, hot air, and chemicals, though found destructive to microscopic germs in the laboratory, clinically are worthless. We are, however, on a higher plane; experience has shown that all treatment must be followed persistently and judiciously under the eye of one who for the time must govern both mind and body of the patient, with the knowledge that health can only be secured by a return of vital force able to overcome and finally destroy the invading micro-organisms. We more intelligently pursue our treatment because we have arrived at a true causation; and whether the theory of the contending armies of the health-restoring phagocytes and their pathogenetic enemies can be demonstrated, we know that as vital energy is restored so will a more favorable prognosis be possible.

Supposing a case comes in the last stages, when cavities have formed and degeneration of tissue has progressed to great extent, can any hope be offered that death may be averted? There is nothing more difficult to say to a patient than that "there is no hope." Nor do I believe we are justified in giving up all hope even in these advanced cases, because many instances have been cited where the first knowledge that the person had ever been afflicted with consumption has been gained by the revelation of an autopsy showing cicatrices the result of extensive destruction of lung tissue. Do not be effusive in encouragement, but let the patient cling to some hope, if it be but a thread and it prove a false one in the end.

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A FEW CONSIDERATIONS ON PERITONEAL EFFUSIONS AFTER INTRA-PERITONEAL OPERATIONS.

A paper read before the American Association of Obstetricians and Gynecologists, Sept. 19, 1889,

By William H. Myers, M.D.,
Fort Wayne, Indiana.

We have been taught to consider the presence of serum, or the effusion of lymph, as effects or products of inflammation.

Diseases produced by the effusion of serum are:

Hydrocephalus;
Hydro-pericardium;
Hydro-thorax;
Ovarian dropsy;
Edema.

"The effusion of serum, except as the lowest degree of inflammation, is probably a rare event."—*Paget*.

The late Prof. S. D. Gross, in speaking of the presence of serum in the peritoneal cavity, says: "I have long been of the opinion that inflammation is indispensably necessary, even in chronic dropsies." I shall not attempt to sustain nor controvert his statement, but leave you to decide the scientific value. Here I shall only add that it may be important to remember the rapid exudation of serum in peritonitis, filling the abdominal cavity in a few hours, without the usual phenomena of inflammation, but always attended with intense thirst. Such cases are usually of traumatic origin.

Disease resulting from the effusion of coagulable lymph are:

Hepatization of the lungs;
Closure of the trachea, in croup;
Strictures;
Adhesions;
Strangulation of the bowels.

These effusions of serum and lymph are always met with in peritonitis, frequently complicating and often defeating our best devised plans of treatment. We call them:

Serous;
Sero-fibrinous;
Purulent.

These distinctions are based upon the character of the exudation. Fibrinous exudation refers to the separating of lymph from the blood, and, when applied to peritonitis, to depositing it upon the free surface of the peritoneum. The rapid formation of lymph in the inflammatory process attracted the attention of S. D. Gross in 1840. In his experiments on dogs, he found that, within a very few hours, bowels have become extensively adherent to each other.

In the adhesion experiments made by Prof. Senn, he ascertained that adhesions are formed in six and twelve hours, between the peritoneal surfaces, which effectually resist the pressure from within outward.

I am of the opinion that a much shorter period is required for perfect union to take place, than is stated above. I believe that, after incising the peritoneum quickly and with a sharp instrument, the union is completed within a few hours. When the blood ceases to flow after an incised wound, exudation invariably follows, and the surface becomes glazed with plastic lymph.

The conditions that determine the production of one or other variety of lymph are, according to Paget:

1. The state of the blood.
2. The seat of the inflammation.

He assures us that he could usually guess accurately, from an examination of the fluid in a blister, the tendencies of the inflammation—to adhesive exudations or of a suppurative character. In the highest health—an exudation containing the most perfect unmixed fibrine; in the lowest health—by the production of the most abundant corpuscles, and their near approach to the character of pus-cells. This doctrine is distinctly enunciated by Coupland, as follows: "The quality of the fluids effused depends upon the state of the vital power; when the former is energetic, then the effused fluid abounds in coagulable lymph."

Rokitansky asserts that the products of the inflammation exist, at least in part, in its germs, pre-formed in the whole blood, and that the greatest and most marked differences of inflammation are manifested in its products.

Here let us pause and ask the question: It is true that these differences are only one of degree, that they are dependent upon the intensity of the inflammatory action?

The late Prof. Mütter taught that the inflammation must not be too high, or we have pus. The same thought was advanced by Prof. S. D. Gross, who said: "The presence of pus, as a rule, is denotive of a higher grade of excitement than a mere deposition of serum and plastic matter."

His pathology was based upon the theories of Bennett, Cohnheim, Virchow, and Waller, that the white blood-corpuscle is identical with the pus-cell, and would so consider it, found outside of the proper blood channels.

They affirmed that the same anatomical element has been variously denominated a white blood-cell or a pus-cell according to the locality in which it has chanced to be discovered.

It will be in accord with the scientific tendency of the present pathology to divide inflammation into simple and effective. The latter depends upon the presence of specific microbes rather than upon a high degree of action, and they are the only and essential cause of suppuration.

If it be true that the growth and activity of mico-organisms are dependent upon the media or soil, then the nearer the patient's health approaches the normal standard, the less danger of invasion, as healthy, living tissue possesses certain powers of resistance. Life, in fact, may be defined as a power capable of resisting decomposition. It is the great antiseptic. Lister suggests that the tissues of a healthy living body have a power of counteracting the energies of bacteria in their vicinity and preventing their development—vitality their poison, non-vitality their food. If their invasion is undertaken in insufficient force, or upon an animal in robust health, they are refused a foothold, and expelled; or, if they have secured a lodgement in the tissues, they are laid hold of and digested by them; this fact has been repeatedly observed and demonstrated by Cameron, Kister, and Billroth. They have also proved by experiment that an undisturbed, healthy coagulum in the vicinity of living tissues will resist the development of putrefactive bacteria, even when present in a highly concentrated form. In illustration, let us apply these statements or facts to surgical procedures, and they will explain the success which has attended important operations without antiseptic precautions; notably does this apply to ovariotomy.

In 1874, I removed an ovarian tumor from a patient æt. thirty-six years. The tumor weighed forty-five pounds. From my notes of the case, I read that the rebound to health was rapid and complete. No antiseptic precautions were used except cleanliness. In this case, I now believe, the recovery was largely due to the high vital energy of the peritoneal surface.

We all know how rapidly a wound in the peritoneum may heal, or the peopling of the lymph in the wound with vigorous new elements; for the formation of lymph proceeds more rapidly in proportion as the wounded tissues are in a more vigorous condition. Hence, the power of organizing blood-clot or lymph to resist the development of putrefactive bacteria. This high vital endowment of the peritoneum is of wide application in abdominal surgery.

Life and putrefaction are not correlative, but antagonistic; and, in proportion as we utilize and economize the attributes of life, we will find ourselves independant of those changes which are inherent to decomposing organic matter.

Dr. Antonine Magnin has demonstrated that, if the animal's health be impaired, organisms may be found in the blood, tissues, and exudations. Watson Cheyne has found that micro-organisms require the condition of rest for their development, and that they will not multiply in the circulating blood.

A predisposing cause in disease may be defined as a cause which, whilst not producing disease itself, renders more effective the exciting cause; and under this head we must include the environment of the patient, shock, loss of blood, and depression of vital powers.

This permits the entrance of the living excitors of inflammation, micro-organisms, into the body. When the health is unimpaired, no living organism can penetrate into the blood; or, if they do, they soon die.

If it be true, as stated by Rokitansky and Paget, that the product of the inflamtion exists pre-formed in the whole blood; that the exudations correspond with the patient's general health, then I believe, in all gynecological operations, that it would be highly proper not to delay for fear that the inflammation that might ensue would tend toward the suppurative rather than the adhesive exudation.

Considering, now, operations intraperitoneal: If it be true, as taught by Rokitansky, that "the product of inflammation exists pre-formed in the whole blood;" by Paget, that "the exudations correspond with the general health," and by Coupland that, when the organic nervous or vital power is much impaired, the fluid effused is septic, and incapable of coagulation, or of becoming the medium of adhesion—then I assume, that in gynecological operations the doctrine held by ovariotomists, to wait until the health becomes impaired, is not sanctioned by sound pathology. That this doctrine is taught will be made apparent by the following quotations:

"From Sir Spencer Wells, in 1872: "So long as there is no great emaciation, no wearying pain, no distressing difficulty in locomotion, the patient should be left undisturbed."

In 1883, referring to the above rule, he says: "Subsequent experience of the ill-effects of delay, and of the diminished mortality of ovariotomy, lead to the conclusion that the welfare of most patients is better promoted by advising an earlier adoption of surgical treatment."

In 1885, he wrote: "In all cases of multilocular cysts or dermoid tumors, justice to the patient demands a positive recommendation of excision, and generally it should be accompanied by a warning against delay." Thus, by his observations and extended experience, he has been compelled to modify and entirely recast the views expressed in 1872.

. Peaslee, in 1872, asserts: "If we delay until the health is somewhat impaired and the patient is slightly anæmic, we diminish the risk of peritonitis, which destroys one-fourth of all who die after the operation." This opinion was endorsed by W. L. Atlee, Bradford, Tyler, Smith, and Erichson, believing that by delay the peritoneum acquires an increased degree of resistive power, becomes more tolerant of injury, and less liable to inflammation."

The idea of peritonitis, like the Raven,

> "Never flitting, still is sitting."

Notably is this true with one of our American gynecologists, who would have us to believe that when

> "the eye doth lose its lustre,"

and, like the world's great warrior, the woman cries,

> "Give me some drink, Titinius,
> As a sick girl,"

then the peritoneum has become tolerant.

Let us contrast the preceding statements with those of Frederick Treves, who says: "When the diagnosis of an ovarian tumor has been established, the sooner the growth is removed the better."

Tait's rule is to remove an ovarian tumor as soon as it is discovered, for the less likely are there to be any complications.

Doran: "As soon as an ovarian tumor is diagnosed, for the longer the tumor grows the greater will be the risk of adhesion."

With Smith, the rule is to operate early. He advised that when the diagnosis is certain, there can be no gain in waiting longer in a disease that is inevitably fatal.

As the name of Thomas Keith has been placed in the list of those advising delay, I wrote a letter to him containing the following question: When would you operate in a case of ovarian tumor, the diagnosis being clear? In reply, I received the following letter:

"42 Charles St., Berkeley Square, W.,
July 9. 1889.

"My Dear Doctor: I have much pleasure in answering your letter of July 26. I think that, as soon as you are sure of your diagnosis, the sooner an ovarian tumor is taken out the better. It can only be a source of danger. My early training in abdominal surgery—when at first operating we had only bad cases and large tumors to deal with—was rather for a time against early interference, because the risk of the operation was then great, or seemed to be great, in any case. I have long got over that, and now always advise early operation. . . . . . . With all good wishes, believe me to be, my dear Doctor,

"Yours very sincerely,
"Thomas Keith."

We will close this part of the subject by the following quotation from Bantock: "I would urge, then, with all the force that the strongest conviction imparts, that ovariotomy should be performed as soon as we can be sure of the diagnosis."

One of the arguments in favor of early intra-peritoneal operation may be drawn from the injurious effects of plastic material, and the formation thereby of abnormal adhesions. In Wells's Table of one thousand cases, adhesion existed in 599 cases, with 163 deaths; percentage 27.54. In 401 cases without adhesion, 68 deaths; percentage 16.95.

Clay gives us the following statistics in illustration of the proposition that the simpler the operation, the less danger:

No adhesions . . .	30 per cent. died.
Slight adhesions . . .	40 " " "
Extensive adhesions . .	50 per cent. died.
Extensive adhesions requiring ligatures . . .	70 " " "

Kœberle refers to 69 ovariotomies:

No adhesions . . .	15 per cent. died.
Grave adhesions . . .	45.5 " " "

I need not repeat the rule formulated by the the late Sir James Simpson, that "the mortality in childbed increased with the duration of the parturient process." Is not the rule when applied to surgical operations: Great celerity will lessen the shock, shorten the anæsthesia, and the exposure of the peritoneum? If it occupy minutes, much safer than if it occupy hours.

The time required will be governed by the extent and firmness of the adhesions. Thus, Bantock refers to 183 cases:

Time occupied:

Up to 60 minutes	137 cases	12 deaths	8 per cent.
60 to 80 "	29 "	6 "	20.6 " "
80 to 100 "	10 "	5 "	50 " "
Over 100 "	9 "	5 "	55.5 " "

Keith has not had one death after ovariotomy, in nine years, where there were no adhesions.

I desire now to call your attention to the presence of serum in the abdominal cavity. This first strongly attracted the attention of Sir Spencer Wells, in Case IV., where he records death in thirty-two hours. Autopsy twelve hours after death. "He asks, Did she die of peritonitis?" He admits finding serum in the peritoneal cavity, but expresses a doubt if simple peritonitis was sufficient to cause such sudden collapse. He declares his impression is that, if peritonitis killed her, it was indirectly by the formation of a morbid poison; as the serum was very acrid he accuses the peritoneum of distilling and another part of absorbing the venomous fluid.

The late Marion Sims believed the cause of death, after intra-peritoneal operations, to be decomposition of the blood-stained serum effused into the peritoneal cavity.

In 1865, Wells published his first volume, containing every case, whether successful or not. In 17 cases published out of 114 referred to in the volume he made autopsies, and reports the presence of serum within the peritoneal cavity; he designates it as "turbid serum," "red serum," "blood-stained serum," in various quantities from a few ounces to one pint or more, in every case death following in from twenty-four to seventy-two hours.

If you will examine the autopsies in Baker Brown's series of 111 cases, you will find expressed that "within the pelvis was found a little bloody serum." They then attributed death to peritonitis; at a later period, by J. Marion Sims, to septicæmia. Now the tendency is, where death rapidly ensues after intra-peritoneal operations, that it is due to sapræmia—poisoning by an alkaloid product of decomposition.

In the *British Medical Journal* of February 15, 1882, Dr. J. Marion Sims uses the following language: "There is no more reason why the system should not be overwhelmed by the absorption of concentrated septic fluid, than by the rapid absorption of an over-dose of morphia. Opium in sufficient quantities may kill in from eight to ten hours; septicæmia may do the same thing often in less time. All this becomes apparent upon reflecting that the peritoneum is a large lymph sac, and that the fluid within is not at rest, but circulates; hence its great power of absorption of air and fluids."

Watson Cheyne, in his lecture on septic diseases, directs special attention to the fact that the rapidity of the absorption of fluids depends upon the tension under which the fluid is: as, when the walls of the abdomen are lax and the fluid under low tension, absorption is slow. Now, if the fluid is not quickly absorbed, and the air has not been sterilized, "the unabsorbed residue becomes the medium of atmospheric micro-organisms, and there they develop with extraordinary rapidity and give rise to those numerous chemical products of micro-organic growth which produce, by their absorption, the alarming symptoms which culminate in death by sapræmia. If the growth and activity of micro-organisms is dependent upon the soil or media, then the longer the fluids in the peritoneal cavity remain unabsorbed, the more liable are they to those septic changes."

I have already alluded to the element of time occupied in ovariotomy, and the remark will apply to all intra-peritoneal operations, alluding to the vast differences in the mortality. An operation needlessly prolonged may be the element that will impair the powers of absorption; the effusions, if present, will not be readily taken up, and it is possible that herein lie the differences that we discover in the results of different operators; their technique may be equal, every exigency promptly met, no delays for consultation; a short operation; anæsthesia limited to a few minutes; shock of short duration, and rapid absorption of effused fluids.

Bantock declares that peritonitis is an exceedingly rare cause of death after ovariotomy, and then only because matter is left behind in the cavity to set up irritation. In March, 1886, I witnessed one of Keith's abdominal sections at the Royal Infirmary in Edinburgh; afterward he remarked to me, "It is a question of sepsis whether the patient recover or not." With this idea in his mind, I could easily account for his care in sponging and not closing the wound until all oozing had entirely ceased. I am convinced that the opinion held by many writers that peritonitis destroys one-fourth, by others that it destroys forty-three per cent. of all those who die after ovariotomy, is not correct.

In Great Britain, 138 fatal cases; 59 reported as deaths resulting from peritonitis.

In the United States, 48 fatal cases; 13 died of peritonitis.

In Germany, 37 fatal cases; 24 died of peritonitis.

Spencer Wells reports 500 cases; in 127 death occurred; 48 per cent. were due to peritonitis.

Is it not possible that we have devoted too much attention to the treatment of peritonitis, and lost sight of the accumulation of serum and of its rapid decomposition when effused into the peritoneal cavity? In the language of Spencer Wells, "Did she die of peritonitis, or did she die from the effects of a morbid poison superadded to the exuded serum and rapidly absorbed?"

To those who still believe with Baker Brown that "It's the peritonitis that beats us"—to such I would address the exhortation of Oliver Cromwell when he lost patience with the Scotch Assembly, and said: "I beseech you, brethren, by the mercies of God, conceive it possible that you may be mistaken."

CONCLUSIONS.

1. "Where sapremia is the fatal factor —not shock—the peritoneum is in fact converted into a reservoir, from which a continuous supply of poisonous material

pours through the lymphatics into the circulation." *Knaggs*.

2. If by careful toilet we can remove all exuded serum or blood, before closing the wound, septicæmia will not occur; if we fail this can be done by the drainage-tube, saline purgatives, and by religiously avoiding the use of opium.

3. Peritoneal operations ought to be quickly done, without prolonged anæsthesia, cold avoided, artificial heat applied, thus preventing and promoting rapid absorption of serum.

4. In intra-peritoneal operations it is not necessary, or even judicious, to wait until the vital forces are somewhat reduced.

THE BEHAVIOR OF THE GERMS OF CHOLERA, TYPHOID AND TUBERCULOSIS IN MILK, BUTTER, WHEY AND CHEESE.—Amongst the numerous labors of the Richsegesundheitsamt has been that of determining the behavior of certain germs of disease in various articles of food. Milk is one of the most common articles of diet, and one of the health office collaborators, L. Heim, of Würzburg, has lately concluded a lengthened inquiry into the relations of the bacilli of tuberculosis, cholera, and typhoid faver to it, and its products, whey, butter, and cheese. That milk is a favorite medium for dissemination of disease is well known, and Koch, amongst others, has shown that it is peculiarly adapted for this purpose. As regards cholera, the germs of the disease were still viable after remaining for six days in milk that had undergone no antisepticising processes; in milk of the same character that had been kept in the ice chest, on the other hand, no living bacteria were found at the end of three days. This part of the inquiry shows that cholera bacteria remain active in fresh milk the whole length of time it is customary to keep it, and that they do not lose their dangerous quality for some days after the milk has become sour. The same germs were found active under some circumstances even at the end of a month. In ordinary strong cheese they did not retain their viability over a day, neither did they in unripe cheese.

The bacilli of typhoid were alive and capable of development in milk at the end of thirty-five days, but no longer so at the end of forty-eight days; in butter they remained active between three and four weeks; in cheese only three days, and in whey only during the first day. Tubercle bacilli remained capable of development for ten days in fresh milk; in milk gradually undergoing decomposition they lost their power in a period varying between ten days and four weeks. In butter, on the other hand, they retained their full power at the end of four weeks; in whey and cheese after two weeks, but not after four weeks. The practical importance of the investigations is so obvious as scarcely to need pointing out, and their bearing on the use of milk, the preservation, carriage, preparation, and sale of it, its products, is equally obvious. Something has been done, much remains to be done, to stop the ravages of disease, and the labors of Dr. Heim are another step forward.—*Med. Press and Circular.*

SANITARY CONDITIONS OF MUNICH AND MEMPHIS.—Two cities that have been almost revolutionized in their sanitary conditions are Munich and Memphis. In the former typhoid fever was one of the high factors of the bills of mortality before Pettenkofer instituted his measures of reform, whereas now the fever is so rare that the medical teachers are often at a loss for a case to show to their classes. From being one of the most unhealthful of European cities, Munich has become one of the most salubrious; it is more prosperous, from an influx of strangers who are settling there, and from the increased attendance of students at the University. Memphis is still engaged upon its sanitary reforms, being busy with the introduction of an artesian water supply of admirable quality. Memphis was formerly a notoriously unhealthy town, and suffered greatly from epidemic disease, whereas to-day she has as low a mortality as any city in the country having the same population. In the words of Dr. Conn, "the change that has come over the city in less than ten years seems more like the tales of romance than the mere realization of a scientific and economic truth."—*Medical News.*

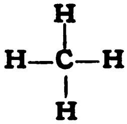
L. C. CARR, M.D., Professor of Obstetrics in Cincinnati College Medicine and Surgery, Cincinnati, Ohio, says: I have given Papine (Battle) a fair trial, and am well pleased with its action, especially so in the case of an infant suffering with an attack of convulsions. Its action was speedy and safe.

CHEMISTRY OF HYPNOTICS AND ANESTHETICS.

A Paper read before the Academy of Medicine, September 9, 1889,

By W. S. CHRISTOPHER, M.D.,
Demonstrator of Chemistry, Medical College of Ohio.

In their chemical features, the substances used as hypnotics, and as anesthetics, are very closely related. They are all derivatives of MARSH GAS. This substance, known chemically as METHANE, has the formula CH_4, and is represented graphically as follows:

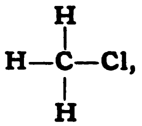


$$\begin{array}{c} H \\ | \\ H-C-H \\ | \\ H \end{array}$$

Methane.

In this molecule, CARBON is a tetrad, and has united to it by each of four bonds of union, a monad atom, HYDROGEN.

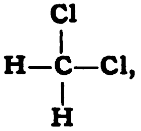
The simplest of the METHANE derivatives are those formed by the substitution in the methane molecule of one or more of the H atoms by a corresponding number of atoms of one of the halogens, chlorine, bromine, or iodine. If one atom of H be replaced by chlorine we have



$$\begin{array}{c} H \\ | \\ H-C-Cl, \\ | \\ H \end{array}$$

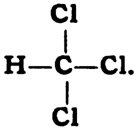
written $CH_3.Cl$, and called MONO-CHLOR-METHANE, or METHYL CHLORIDE.

The DI- and TRI-CHLOR-METHANES are respectively:



$$\begin{array}{c} Cl \\ | \\ H-C-Cl, \\ | \\ H \end{array}$$

and



$$\begin{array}{c} Cl \\ | \\ H-C-Cl. \\ | \\ Cl \end{array}$$

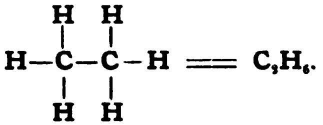
Methylene bichloride. Chloroform.

These substances are known as METHYLENE BICHLORIDE, CH_2Cl_2, and CHLOROFORM, $CH.Cl_3$, and are at once recognized as our two most powerful anesthetics, the former especially being noted for the suddenness with which it produces deep sleep.

The TETRA-CHLOR-METHANE, or CARBON TETRACHLORIDE, CCl_4, also has a powerful paralyzing action on the nervous system, and also destroys muscular contractility.

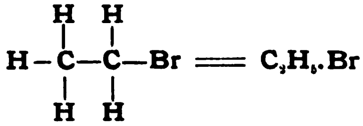
Corresponding to chloroform in its molecular structure is iodoform, TRI-IODO-METHANE, $CH.I_3$, which has decided power as a local anesthetic in man, and in cats and dogs produces narcosis, although this feature is absent from its action in man.

ETHANE is the hydro-carbon next to METHANE in the paraffin series. Its formula is:



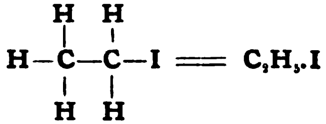
$$\begin{array}{ccccc} & H & & H & \\ & | & & | & \\ H- & C & - & C & -H \\ & | & & | & \\ & H & & H & \end{array} = C_2H_6.$$

Of the halogen derivatives of this hydro-carbon, the ETHYL BROMIDE



$$\begin{array}{ccccc} & H & & H & \\ & | & & | & \\ H- & C & - & C & -Br \\ & | & & | & \\ & H & & H & \end{array} = C_2H_6.Br$$

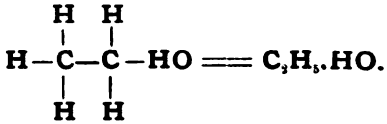
is an anesthetic, and the ETHYL IODIDE



$$\begin{array}{ccccc} & H & & H & \\ & | & & | & \\ H- & C & - & C & -I \\ & | & & | & \\ & H & & H & \end{array} = C_2H_5.I$$

is an antispasmodic.

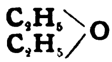
When the hydroxyl radical (HO) is substituted for hydrogen in a hydro-carbon the resulting compound is termed an alcohol. Ordinary or ethylic alcohol is derived from ETHANE, its formula being the following:



$$\begin{array}{ccccc} & H & & H & \\ & | & & | & \\ H- & C & - & C & -HO \\ & | & & | & \\ & H & & H & \end{array} = C_2H_5.HO.$$

The use of this substance for its anesthetic and hypnotic properties is well-nigh universal.

The ethyl radical, C_2H_5, as its combination above indicates, is a monad, hence its oxide must have the following structure:



$$\left.\begin{array}{l} C_2H_5 \\ C_2H_5 \end{array}\right> O,$$

usually written $(C_2H_5)_2O$. This substance, ETHYL OXIDE, is ordinary ether, the so-called sulphuric ether.

The METHYL radical, from METHANE, is (CH_3). It, together with ETHYL, may unite with oxygen, forming METHYL-ETHYL ETHER:

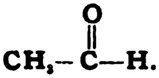
$$\begin{matrix}CH_3\\C_2H_5\end{matrix}\rangle O = CH_3.C_2H_5.O.$$

This substance is an anesthetic.

By oxidation alcohol loses two atoms of H and becomes ALDEHYDE. Thus:

$$C_2H_5.HO-H_2 = CH_3.COH.$$

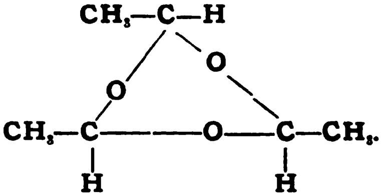
The structure of the ALDEHYDE molecule may be represented thus:



$$CH_3-\overset{\overset{O}{\|}}{C}-H.$$

In this formula the group $-\overset{\overset{O}{\|}}{C}-H$ is called the aldehyde group and is characteristic of all aldehydes. It bears an interesting relation to many hypnotics.

While ordinary aldehyde is not used as an hypnotic, its polymeric form, PARALDEHYDE, is so employed, and is recognized as one of the most powerful and reliable remedies of this class. The formula of paraldehyde is $(CH_3.COH)_3$ and its molecular structure is supposed to be as follows:



By substituting Cl for the H in the CH_3 group in the aldehyde, TRICHLOR-ALDEHYDE, or CHLORAL, $CCl_3.COH$, is produced. Chloral is formed by the direct action of chlorine upon alcohol.

The following equations, while not showing absolutely the reactions as they occur, yet nevertheless serve to indicate the relations of these three hypnotics to each other:

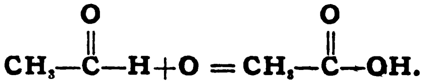
$$\underset{\text{Alcohol.}}{CH_3.CH_2.OH} + Cl_2 = \underset{\text{Aldehyde.}}{CH_3.COH} + 2HCl.$$

$$\underset{\text{Aldehyde.}}{CH_3.COH} + 6Cl = \underset{\text{Chloral.}}{CCl_3.COH} + 3HCl.$$

It is interesting to note here the increase in hypnotic power imparted to the aldehyde by the introduction into its molecule, of chlorine, and to refer to the two chlorine derivatives of marsh gas, METHYLENE BICHLORIDE, $CH_2.Cl_2$, and CHLOROFORM, $CH.Cl_3$, which have such marked anesthetic properties. Brunton claims that the chlorine-containing marsh gas derivatives are powerful muscular poisons, destroying the contractility of both voluntary and involuntary muscular fibre.

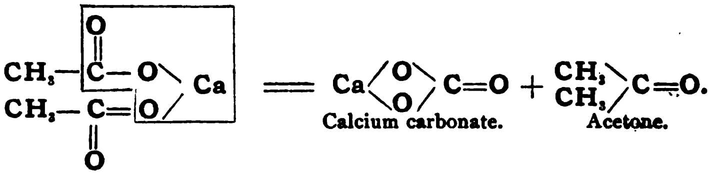
Exactly similar to chloral in its molecular structure is BROMAL, $CBr_3.COH$, which has a narcotic action like chloral, and a more marked paralyzing action on the heart (*Brunton*).

As has already been shown, alcohol when oxydized gives aldehyde. Now aldehyde when oxydized gives acetic acid, thus:



$$\underset{\text{Aldehyde.}}{CH_3-\overset{\overset{O}{\|}}{C}-H+O} = \underset{\text{Acetic acid.}}{CH_3-\overset{\overset{O}{\|}}{C}-OH.}$$

When an acetate, for instance, calcium acetate is distilled, it is decomposed, giving off a liquid ACETONE, and leaving behind a carbonate. The reaction may be thus shown:



Calcium acetate. Calcium carbonate. Acetone.

In this connection it should be remembered that acetone is the substance supposed to be the cause of coma in diabetes.

The new hypnotic, "HYPNONE," has the following structural formula:

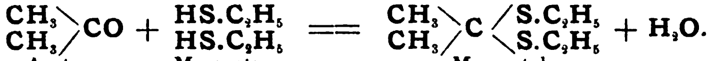
$$\begin{matrix}CH_3\\C_6H_5\end{matrix}\rangle C = O,$$

which, on being compared with that of acetone, is found to differ from it only in having the radical PHENYL, C_6H_5, substituted for one of the METHYL, CH_3, groups of the latter.

An alcohol may be considered as the hydrate of a hydro-carbon radical; the ordinary alcohol, $C_2H_5.HO$, is ETHYL HYDRATE.

Similar in structure to the alcohols are the MERCAPTANS, but, instead of being hydrates, they are sulphydrates of the radicals, ordinary mercaptan being ETHYL SULPHYDRATE, $C_2H_5.HS$.

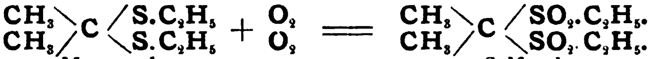
When ACETONE and MERCAPTAN are brought together, they unite to form MERCAPTOL, thus:



$$\begin{matrix}CH_3\\CH_3\end{matrix}\!\!>CO+\begin{matrix}HS.C_2H_5\\HS.C_2H_5\end{matrix}=\begin{matrix}CH_3\\CH_3\end{matrix}\!\!>C<\!\!\begin{matrix}S.C_2H_5\\S.C_2H_5\end{matrix}+H_2O.$$

Acetone. Mercaptan. Mercaptol.

If MERCAPTOL be now oxidized, by such oxydizing substance for instance as potassium permanganate, it is converted into "SULFONAL:"



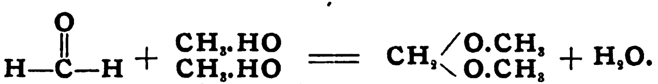
$$\begin{matrix}CH_3\\CH_3\end{matrix}\!\!>C<\!\!\begin{matrix}S.C_2H_5\\S.C_2H_5\end{matrix}+\begin{matrix}O_2\\O_2\end{matrix}=\begin{matrix}CH_3\\CH_3\end{matrix}\!\!>C<\!\!\begin{matrix}SO_2.C_2H_5.\\SO_2.C_2H_5.\end{matrix}$$

Mercaptol. Sulfonal.

The structural formula of SULFONAL shows it to be a derivative of methane in which two of the hydrogen atoms are replaced by methyl groups, CH_3, and the other two by ETHYL SULPHONIC ACID less an hydroxyl group. This structure is shown by the chemical name of the substance, DI-ETHYL-SULPHON-DI-METHYL-METHANE.

In forming sulfonal, the acetone loses its distinctive group, $=C=O$. How far the mercaptan acts as ethyl alcohol in conferring hypnotic powers on sulfonal is uncertain. I have not been able to ascertain the physiological properties of mercaptan. The combination into sulfonal is, however, one of our best known, though most recent, hypnotics.

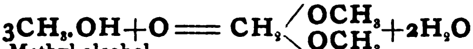
The hypnotic "METHYLAL" is formed by the union of METHYL OR FORMIC ALDEHYDE with two molecules of METHYL ALCOHOL:



$$H-\overset{\overset{\Large O}{\|}}{C}-H+\begin{matrix}CH_3.HO\\CH_3.HO\end{matrix}=CH_2<\!\!\begin{matrix}O.CH_3\\O.CH_3\end{matrix}+H_2O.$$

Formic aldehyde. Methyl alcohol. Methylal.

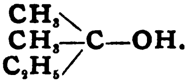
In this reaction the distinctive aldehyde group of the formic aldehyde is broken up, so that we can not look to this for the hypnotic properties of the substance. On comparing it with methylene bichloride, $CH_2<\!\!\begin{matrix}Cl\\Cl\end{matrix}$ we find it to contain two METHYL ETHER groups in place of the two chlorine atoms. Possibly both the methylene and the ether confer hypnotic properties upon it. Its ethereal character is very well shown by its formation from methyl alcohol by oxidation, as follows:



$$3CH_3.OH+O=CH_2<\!\!\begin{matrix}OCH_3\\OCH_3\end{matrix}+2H_2O$$

Methyl alcohol. Methylal.

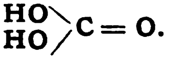
AMYLEN HYDRATE, recently introduced as an hypnotic, has the following formula:



$$\begin{matrix}CH_3\\CH_3\\C_2H_5\end{matrix}\!\!>C-OH.$$

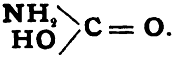
In this compound, the COH is not the aldehyde group, in which the O and H are separately united to the C, but the O and H constitute an hydroxyl group, and as such are united to the carbon by a single bond of union.

The hypnotic "URETHANE" is closely related to carbonic acid. The theoretical carbonic acid is:



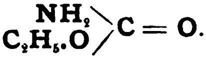
$$\begin{matrix}HO\\HO\end{matrix}\!\!>C=O.$$

If in this acid one of the hydroxyls be replaced by the radical AMIDOGEN, NH_2, there is produced CARBAMIC ACID:



$$\begin{matrix}NH_2\\HO\end{matrix}\!\!>C=O.$$

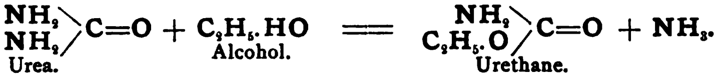
When the H of the hydroxyl in this acid is replaced by an hydro-carbon radical, a URETHANE is produced. The best known of the urethanes, and the one which bears the generic name, is ETHYL URETHANE:



$$\begin{matrix}NH_2\\C_2H_5.O\end{matrix}\!\!>C=O.$$

Theoretically, as pointed out by Schmiedeberg, this substance should be a most excellent hypnotic, because it contains the alcohol radical, C_2H_5, to exert a sedative or paralysing action on the cerebrum, and the AMIDOGEN to stimulate the medulla and spinal cord. In fact it does produce sleep, and stimulates respiration, while not acting upon the circulation (*Brunton*).

The relation of urethane to urea is very interesting, and is shown by the following reaction between urea and alcohol:



$$\underset{\text{Urea.}}{\begin{matrix}NH_2\\NH_2\end{matrix}\!\!>C{=}O} + \underset{\text{Alcohol.}}{C_2H_5.HO} = \underset{\text{Urethane.}}{\begin{matrix}NH_2\\C_2H_5.O\end{matrix}\!\!>C{=}O} + NH_3.$$

An important fact in connection with the chemistry of hypnotics is that observed by Crum-Brown and Fraser, namely, that the introduction of methyl into the molecules of various alkaloids, gives to them the property of paralysing the motor nerve endings. Thus the convulsive action of strychnine, brucine, and thebaine, was changed to one of paralysing the motor nerve terminations, when methyl was introduced into their respective molecules. This peculiar action of the methyl was not limited to spinal cord stimulators, but was also noted in methyl-morphine, methyl-quinine, methyl-nicotine, methyl-veratrine, methyl-atropine, and others (*Brunton's Therapeutics*).

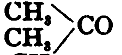
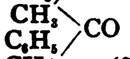
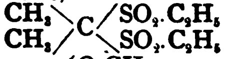
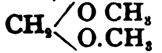
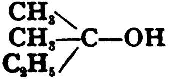
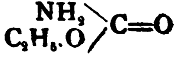
The molecular structure of morphia has not yet been determined, but some facts concerning it already known, indicate that it is quite complex, but whether or not it contains groups related to those already discussed, is not now known.

In examing the substances considered here as hypnotics and anesthetics, we find that they all belong to the fatty group of hydro-carbons; not only this, but they are limited to the lowest or paraffin series of this group; still further, they are derivatives of the first two members of this series, viz., METHANE, CH_4, and ETHANE, C_2H_6. Excepting chloral, bromal, and the di-, tri-, and tetra-halogen derivatives of these two hydro-carbons, all of the hypnotics considered, contain either the methyl or the ethyl radical, or both. In all of those which are distinctly hypnotic, as distinguished from anesthetic, excepting sulfonal, methylal, and amylen hydrate, we find the aldehyde group, $-\underset{\substack{|\\ H}}{C}{=}O$, or at least part of it, viz., $=C{=}O$. This is true of aldehyde, paraldehyde, chloral, bromal, acetone, hypnone, and urethane. Alcohol is probably only an apparent exception, for in the organism it is most likely oxidized to aldehyde. The mode of formation of sulfonal, and methylal, would also indicate the re-formation of this group in their decomposition within the organism. The presence of this $=C{=}O$ group in so simple a hypnotic as carbonic acid is also suggestive.

While the facts here shown do not warrant any special conclusions as to the causes of action of hypnotics, they do indicate most strongly that a definite relation exists between molecular structure and physiological action, and we may expect that such relations will probably soon be made known, in a greater or less number of cases.

We also have ground to hope that the highest problem of therapeutics may some day be solved, viz., the ultimate chemical reactions which occur between medicines, and the tissues themselves, and which reactions are the causes of the so-called physiological manifestations. In such work will scientific medicine reach its acme of perfection.

Marsh Gas derivatives having more or less marked hypnotic or anesthetic properties:

Monochlormethane,	CH_3Cl	
Dichlormethane,	CH_2Cl_2	Methylene bichloride.
Trichlormethane,	$CH.Cl_3$	Chloroform.
Tetrachlormethane,	CCl_4	
Tri-iodomethane,	$CH.I_3$	Iodoform.
Ethyl bromide,	$C_2H_5.Br$	
Ethyl iodide,	$C_2H_5.I$	
Ethyl hydrate,	$C_2H_5.HO$	Alcohol.
Ethyl oxide,	$(C_2H_5)_2O$	Ether.
Methylethyl ether,	$CH_3.C_2H_5.O$	
Aldehyde,	$CH_3.COH$	
Paraldehyde,	$(CH_3.COH)_3$	
Trichloraldehyde,	$CCl_3.COH$	Chloral.
Tribromaldehyde,	$CBr_3.COH$	Bromal.
Acetone,	 $\begin{matrix}CH_3\\CH_3\end{matrix}\!\!>CO$	
Hypnone,	 $\begin{matrix}CH_3\\C_6H_5\end{matrix}\!\!>CO$	
Sulfonal,	 $\begin{matrix}CH_3\\CH_3\end{matrix}\!\!>C<\!\!\begin{matrix}SO_2.C_2H_5\\SO_2.C_2H_5\end{matrix}$	
Methylal,	 $CH_2<\!\!\begin{matrix}O\ CH_3\\O.CH_3\end{matrix}$	
Amylen hydrate,	 $\begin{matrix}CH_3\\CH_3\\C_2H_5\end{matrix}\!\!-C-OH$	
Urethane.	 $\begin{matrix}NH_2\\C_2H_5.O\end{matrix}\!\!>C{=}O$	

Society Reports.

ACADEMY OF MEDICINE.

OFFICIAL REPORT.

Meeting of September 9, 1889.

The President, Wm. Judkins, M.D., in the Chair.

G. A. Fackler, M.D., Secretary.

Modern Hypnotics.

Dr. Whittaker thought that a chapter on hypnotics might well be prefaced by a panegyric on sleep, but inasmuch as poets and philosophers, from Shakespeare to Sancho Panza, have failed to do it justice, the physician may be excused from the attempt. Beaumont said, "how happy is that balm to wretches, sleep!" and, although we are not all wretches, all men are sometime wretched, and wretched or happy we feel alike the absolute necessity of sleep. Sleeplessness arises from many causes. Perhaps the most fruitful cause is moral, when "not poppy nor mandragora, nor all the drowsy syrups of the East shall ever medicine thee to that sweet sleep which thou owd'st yesterday." Threatened social ruin, financial distress, jealousy, envy, revenge, with women more especially domestic infelicities, play here important roles. Then febrile states, brain exhaustion, monotonous and profitless labor are also causes; thus the hard-working journalist, book-keeper, bank clerk, physician come under this head. The best proof of the frequency of the affection among physicians is the large number addicted to the use of chloral, morphia, etc.

We would have a better knowledge of hypnotics if we knew something definite of the nature of sleep. Various theories have been entertained, but none proposed as yet are free from valid objections.

First, the old dynamic theory, that sleep ensues because at certain intervals the brain requires rest.

It is not true that sleep becomes a necessity at periodic intervals, or especially at night. We know of people who work at night and sleep during the day. We know of regions in which daylight prevails six months of the year; moreover, it is not true that all organs require rest. The centres of circulation and respiration are in continuous activity. As Jasohwitz remarks, to say that we sleep because we need it is only to say that we sleep because we do sleep.

Then developed the mechanical theory.

It was observed by Blumenbach that the brain during sleep becomes anæmic. Hammond made the observation that the blood-vessels were diminished in size. We know, however, that in profound anæmia we very often have the opposite condition, and that sometimes to a degree as to cause a state known as coma vigil; so that it is a question if the anæmia be not the effect rather than the cause of sleep. We know also that to sleep we lie down, and the brain is more full of blood in the recumbent posture. Yet this objection is met by the observation that the surface vessels dilate, and thus detract blood from the brain. Children more especially sweat about the face and neck, often over the whole body, in sleep.

The observation has been made that when an individual falls asleep there takes place a fall in temperature in the rectum, while in the ear a rise of temperature to .6° to .8° C. occurs.

It is a common observation that little children in sleep show a rise in the surface temperature of the head.

We now approach the chemical theories:

1. Pflüger's, to the effect that oxygen accumulates in sleep, and when increased in the body to a certain extent the processes of oxidation awaken us; but fever is essentially an increased process of oxidation, and febrile states are direct causes of insomnia.

2. Preyer's auto-intoxication theory. It has been observed that exercise will induce sleep, and in exercise certain products of muscular waste accumulate in the blood. But excessive exercise results in a state of exhaustion which is far from and is often fatal to sleep.

Thus we are as yet without an explanation of a condition in which we pass one-fourth to one-third of our lives, and we are forced to appeal to the molecular theory, to the effect that a different arrangement of the molecules in the protoplasm of the brain cells occurs in sleep. This is, of course, a provisional theory, to which we are forced, so to speak, by exclusion, and under which we must take refuge at present in explaining the action of hypnotics.

The first problem to consider in an individual case is, What are the causes of insomnia? Aside from moral causes or diseases, tea, coffee, tobacco, and certain medicinal agents, as arsenic, mercury and lead, are known to dispel sleep.

Certain diseases are complicated by insomnia, diabetes (through neuralgia, polyuria and thirst), carcinoma, tabes (through pain), Bright's disease (through uræmia), and the large class of conditions resulting in nervous exhaustion.

In some of these diseases, as in malaria, tuberculosis, typhoid fever, etc., a reduction of temperature by means of quinine, antipyrin, antifebrin and phenacetin, or baths, will indirectly induce sleep.

In cases of pure exhaustion, neurasthenia, the chief hypnotic is alcohol. It is the most nutritive substance that we have. It stimulates the heart first, and next is decidedly soporific. What else is the meaning of the term "night cap" as applied to alcohol? But we know the danger of alcohol as a remedy. Tolerance is begotten, and the same quantity will not continuously produce the same effect. Its indiscriminate use is, therefore, never to be recommended.

If asked what is the best sleep-producing agent, the majority of the laity would say opium. But opium is not, truly speaking, a hypnotic, but an anodyne, whose sovereign virtue is to ease pain. Only in so far does it produce sleep as it conquers pain. It is first, then, an anodyne, and secondly a soporific. Small doses bring about a stage of excitement, and only large doses sleep. Opium is a narcotic rather than a hypnotic. It possesses one virtue above all the rest. It stimulates the nervous system above all others. Opium-eaters only begin to live after their morning dose, and some of the loftiest flights of the imagination have been called out under its use. But opium has evils as a hypnotic. It ruins the digestion and destroys the morale of the individual. It must be increased almost daily, and everybody knows the terrible effects of the opium habit. It is of all chronic diseased conditions the most refractory to treat. It is indeed a two-edged sword.

A good hypnotic must not harm the stomach or the heart, must act safely, quickly and kindly, and above all things must beget no habit.

The agent which above all others in the *healthy* individual is the best and safest hypnotic is chloral. It succeeds when all others fail. It acts like chloroform and at once, hence its danger and contra-indication in heart disease. No remedy acts so well in delirium tremens. The most virulent insomnia gives way to grs. 20–30 of chloral. But because the subjects of alcoholism are frequently the possessors of fatty hearts, the use of chloral is frequently absolutely contra-indicated.

Preceding the chloral with the administration of ten to fifteen drops of dilute hydrochloric acid will obviate to a great extent this danger, by preventing that rapid liberation of chloroform which takes place in an alkaline fluid.

The addition of morphia to chloral will immensely intensify its action. A compound of each in small doses is better than one alone. The morphia prevents the rapid elimination of the chloral and abstracts its occasional exciting effect.

In obstetric practice we may secure entire analgesia at times with preservation of consciousness. But the physician must keep the patient under observation after the use of these combinations, which should never be given in large doses.

It is in insanity that we want the pure hypnotic. We must have it at times in maniacal excitement. The most valuable remedy in this condition is hyoscin, but it is not very safe. It must be given in small doses and not subcutaneously. It is tasteless and acts quickly. It does not disturb digestion nor the heart. It may be said that 0.003 every six to eight hours will produce a natural sleep, but it sometimes produces a preliminary delirium and mydryasis, with very unpleasant dryness of the mouth and throat. It should be used only in cases of motor excitement.

In the study of modern hypnotics the speaker would confine his remarks to paraldehyde and sulfonal.

Paraldehyde is not difficult of administration, the only disagreeable feature being its odor, which persists for twenty-four hours. It is best given in the tincture quillaia, with a few drops of chloric ether and some aromatic water. It produces no discomfort, and does not affect the heart. It acts in ten to fifteen minutes, as a rule, and the resulting sleep is like spontaneous natural sleep. Custom is not begotten by its continued exhibition.

A case is reported by Clouston of a woman who for a period of two years slept only one or two hours every night. Paraldehyde was given in ʒi.–ii. doses for six weeks continuously. At the end of that time its use was discontinued, and during the subsequent eighteen months she was blessed with natural sleep.

The remedy is so safe that it may be given in almost any dose. As much as an ounce has been given by mistake, resulting in twelve hours' natural sleep. No lassitude is experienced upon awakening, and, what is more essential, it has no harmful influence upon the course of the disease. It very frequently increases the appetite, never destroys it. It fails in a small percentage of cases.

Sulfonal is now coming into more general use. It has no odor, very little taste, but rather a cooling sensation to the tongue, and hence is easily administered. The objection to its use is that it acts slowly. It ought to be given two or three hours before retiring. Kast says that it is best administered at supper time in a bowl of milk. It disturbs neither the stomach nor heart. It is *par excellence* a hypnotic. To accelerate its absorption it may be preceded by a few drops of dilute hydrochloric acid.

So far as the speaker has observed sulfonal, he has never noticed the slightest unpleasant effect. But, as observations have multiplied, it seems that occasionally, in about ten per cent. of all cases, unpleasant after-effects are experienced, *i.e.*, nausea, confusion of ideas, tumbling gait. Again, it has been noticed that it will bring on drowsiness simply, to be succeeded on the following night by spontaneous natural sleep. This action is probably due to the slowness of absorption. The speaker tested its value once on himself in travelling upon a railroad train. Instead of a nervous, sleepless night, there was a sound sleep, with a sense of perfect refreshment on awakening. He has since had this statement repeatedly confirmed by patients naturally sleepless on trains, boats, etc. Hereupon the speaker quoted from a number of recent German and Italian observers, who all highly lauded the effects of sulfonal, and were unanimous in the statement that no bad habit was begotten by its use.

Dr. Christopher presented the subject of the

Chemistry of Hypnotics and Anæsthetics,

And illustrated his remarks with charts (see p. 368).

Dr. Wm. Judkins had used sulfonal upon himself for the relief of insomnia, with which he suffered during travelling. Grs. xv. procured sound sleep lasting for twelve hours, followed only by a peculiar sensation in the head.

Dr. Cleveland remarked that his experience with paraldehyde had been very satisfactory. We all know that the less frequently we employ hypnotics, the better it is for our patients. The special point of interest is: can we have hypnotics which may be used without producing a habit, as is the case with chloral, opium, chloroform, etc.

Dr. E. G. Zinke was especially satisfied with the action of chloral as a hypnotic. He had tried paraldehyde in a case of alcoholism, and failed to produce the desired effect. On a few occasions he had tried sulfonal, but could record only absolute failure. He had given it in gr. x. doses every two hours, and this method may account for the failure. Chloral is *the* remedy to produce healthy sleep if disease be not present to contra-indicate its use.

Dr. Whittaker, in conclusion, expressed his gratification at the able presentation of the chemistry of hypnotics by Dr. Christopher. As clinical practitioners we take our drugs as presented, without knowing anything often of their composition, and so we get a confused idea as to the connection between these various remedies. Here we have demonstrated a fundamental substance from which all these agents are derived, and the subject invested thus with scientific dignity. It shows us what ultimate hope there is that we may reach some kind of combination that will produce any desired effect without danger. The speaker was surprised that so little use had been made here as yet with these agents.

As pure hypnotics, we have no remedies to compare with paraldehyde and sulfonal, because, as a rule, they have no disagreeable after-effects. The speaker was satisfied that they would come into more general use if physicians would try their effects upon themselves.

It will not do to give these remedies in broken doses. Less than grs. xx. of sulfonal should never be given. As to forming the habit, there is no danger. The action of these remedies is not like that of opium, *i.e.*, an increase of dose is not necessary to produce continuous effect.

The speaker was surprised to hear that others had so few cases of sleeplessness to treat. It is because we ignore so much the feature of psychic distress that the field for the charlatan is left open so wide. Of course, we must individualize cases. It is not right to force sleep on all occasions, though it would be right if we were absolutely sure that the process was entirely void of danger. Most diseases are aggravated by want of sleep, and if we fail to address this symptom it is because we fear a greater evil from the drug employed to remove it. This evil we do not now need to fear. The speaker believed that we could prevent some cases of insanity by forcing sleep, and we may always give comfort—infinite, unspeakable comfort—to the unfortunate, and who is not so unfortunate some time in his life, who might say with Byron:

> "My slumbers—if I slumber—are not sleep
> But a persistence of enduring thought
> Which then I can resist not."

THE RESULTS OF RECENT METHODS OF TREATMENT OF LARYNGEAL TUBERCULOSIS.—Professor S. Krause has lately re-published an article of his in the *Therapeut. Monatschrift* (5th, 1889,) in which he pleads for an extended employment of local methods of treatment of laryngeal phthisis. The method most in favor by him is that of first scraping the diseased portion by the curette, and afterwards applying lactic acid. He curettes out not only the ulcerations and granulations in order to obtain a sound base, but also excises portions from the infected tissues to make them more accessible to the lactic acid. In this way he has treated seventy-one cases, forty-three of which have been discharged cured and freed from trouble. Of these, twenty-three are still living, seven are dead, but none in consequence of the laryngeal tuberculosis; eight have withdrawn from treatment, and twelve are still under it.—*Med. Press and Circular.*

SANDER & SONS' Eucalypti Extract (Eucalyptol). Apply to DR. SANDER, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Greifswald.

THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

Second Annual Meeting, held at Burnet House, September 17, 18 *and* 19, 1889.

[Reported by W. H. WENNING, M.D., Assistant Secretary.]

[Continued from page 348.]

THIRD DAY, SEPTEMBER 19.

Morning Session.

DR. E. E. MONTGOMERY, of Philadelphia, read a paper on

Vaginal Hysterectomy.

He remarked that it was not a modern operation. Freund removed the uterus through the abdominal walls in 1878, but the operation was subsequently followed by so great a mortality that it has since then been abandoned. Previous to this, however, it had been removed *per vaginam*, which was again re-instated by Czerny on April 12, 1879.

The indications for removal of the uterus are cancer, prolapsus, fibroid tumors, and endometritis. The speaker would restrict the operation only for cancer. It was indicated in every instance where the disease was as yet confined to the uterus. Some operators limit themselves to the high amputation when the neck alone is involved; but he doubted if in this operation the diseased structures could ever be entirely removed. To perform vaginal hysterectomy the uterus must be movable; pelvic indurations are a contra-indication, also if the disease extends into the broad ligaments. Simple parametric exudation is, however, not a contra-indication.

Thus far the mortality in 495 cases has been 24.29 per cent., although with some operators it has been less than 5 per cent. In skilful hands the mortality is now less than 10 per cent. He thought the average mortality would be from 5 to 10 per cent. He regarded the total extirpation no more fatal than the partial operation, and the results do not compare unfavorably with other operations.

The methods are manifold. The lithotomy position is generally the one preferred in this operation. Some operators begin posteriorly, others anteriorly, in the operation; some use ligatures in controlling hemorrhages, others, following Richelot, use clamps. Three important conditions are necessary for the successful performance: asepsis — control against hemorrhage—drainage. The clamp has the following advantages: (1) It does not require a change in the position of the uterus; (2) it insures complete control of the broad ligaments; (3) there is no danger of injuring the ureters; (4) it requires no special provision for drainage; (5) it saves time. The essayist followed the following plan of operation: First he washed out the vagina thoroughly with an antiseptic solution, with the patient in the lithotomy position. He then incised the parts around the womb with a knife or scissors, keeping close to the uterus until he reached the peritoneum. The uterus was drawn down with a volsella and the posterior cul-de-sac opened. A large sponge was then introduced, which served to protect the parts above. The broad ligaments were then clamped and the uterus removed. The cavity was then sponged out and the large sponge withdrawn. A tampon of iodoform gauze was then introduced, not so high, however, as to separate the peritoneal surfaces. The gauze was removed on the third or fourth day, after which the vagina was washed out daily. After the fifth day the patient was allowed to sit up in the semi-recumbent position.

He had operated three times. In the first case he had some trouble, as a portion of the ligament slipped out from a slipping off of the blades of the clamp sideways. For this reason he had the clamp so modified that one blade secured the other in direct apposition. (The author here exhibited his clamps; also a larger, heavier pair made after a plan of Greig Smith's, the blades being joined at their ends.) The patient had a maximum temperature of 100°, and recovered entirely.

In a second case, supposed to have been a carcinoma of the body, the clamps were applied after some effort and removed in seventy-two hours. The subsequent progress was normal. The examination did not, however, confirm the diagnosis of malignant disease.

In the third case he burrowed through the broad ligament so as to reach above the uterus. The clamps remained on twenty-eight hours. On the seventh day this patient had some pain, and died on the fourteenth day from tetanus, which she probably derived from a lap-dog with which she had played.

His conclusions were: (1) That in all cases of cancer of the uterus, there being no contra-indication, vaginal hysterectomy is justifiable; (2) it is not necessarily attended with greater mortality than other operations; (3) it should be done as soon as the diagnosis is made; (4) hemorrhage should be controlled with forceps.

Dr. Price then followed with a paper on

Supra-Vaginal Hysterectomy: Extra-Peritoneal Dry Treatment of the Pedicle.

He vindicated the use of the wire clamp to secure the stump of the uterus, as it controlled hemorrhage more certainly. The objection to it hitherto has been that it takes a long time for the separation of the slough. His method consists in firmly clamping the uterus, drawing it down to the lower angle of the incision, then cutting away everything above and closing the peritoneum completely around the stump, so that it is entirely extra-peritoneal. This shuts out all danger of sepsis. The stump is then dressed with dry iodoform gauze. It finally becomes mummified and drops off without odor or discharge. The clamp must be tightened daily. It must be made of strong and pliable, but not ductile, metal. Before the clamping the uterus is secured with steel pins.

Dr. J. H. Carstens, of Detroit, in this connection reported a

Successful Removal of a Fibrous Tumor of the Right Ovary during Pregnancy.

The essayist alluded to the rarity of these cases; he was unable to find another one on record that was operated on during pregnancy. The right ovary was removed, but the left one allowed to remain intact, as it was healthy and the woman anxious to have children. The pregnancy proceeded uninterrupted and the patient made a good recovery.

DISCUSSION.

These three papers were then declared open for discussion.

Dr. Wathen thought they all covered practical subjects, and therefore demanded careful study. As far as the first paper, by Montgomery, was concerned, he was fully

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RHEUMATISM.

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convinced of the author's dexterity, because he had seen him operate. It was hardly fair, however, to draw conclusions as to future results. From all abdominal sections for cancer, made according to Freund's method, we have thus far had bad results reported. Even the statistics of the vaginal operations of Schroeder and Martin are not conclusive because their technique was faulty, and hence we could not expect good results. The greatest desideratum is to get the uterus away in the quickest time possible; next, to control hemorrhage; and finally, to get perfect drainage. A prolonged operation under anæsthesia materially increases the danger from shock.

It is impossible for anyone to perform a vaginal hysterectomy and ligate the vessels with speed. The suture, moreover, does not control hemorrhage. Martin, of Berlin, though quite an expert in this method, has had fatal results. One of his operations made in Boston died from this cause. With the clamps the operation is performed in one-fourth the time. As it shortens the time it also controls hemorrhage more perfectly. After a careful separation of the peritoneum in front and behind, one finger can be hooked on either side over the broad ligament, which is grasped in that manner. There is a variety of clamps, of which he thought the ordinary clamp forceps the best. The adjustable clamp exhibited by the essayist is not easily applied, is too heavy, and causes pain. The other, handled, clamp he thought was longer than was necessary. The speaker devised one that was half of the length of the one exhibited, so that only the handles, which were bent towards either side, protruded. With this method it is not necessary to invert the uterus and thereby throw the cancerous neck into the peritoneal cavity.

The speaker would not mention the other indications; he thought no one would operate for prolapsus, etc.

A last word as to drainage. Martin and Schroeder sutured the peritoneum and only left space enough for a drainage-tube. Here there was lack of drainage, because the tube might become clogged. It is better to leave the vaginal vault open. He was also opposed to packing the cavity with anything. Moreover, he saw no necessity for injections into the vagina, because there was danger of carrying necrosed tissue up into the peritoneal cavity. The application of absorbent cotton to the vulva, however, prevented contagion. On the whole he believed the results from vaginal hysterectomy were better than from supravaginal amputation. If good results followed the latter operation there was a possibility of error in diagnosis. The line between benign and malignant tissue is imperceptible, hence we could never be sure of having removed all the diseased structure.

Dr. Reed considered the question of the justifiability of vaginal hysterectomy long since settled. Beyond doubt the consensus was in favor of total extirpation, against partial amputation. The essayist gave elaborate statistics in proof of the good results. These statistics are only as to primary results; in regard to secondary results they are meagre. In the majority of cases there is a speedy recurrence. The speaker had five cases: four primary recoveries and one death. One of the primary recoveries, operated on twenty-eight months since, had a recurrence in thirteen months. It was a case of marked sarcoma at the junction of body and cervix. The parts had been carefully curetted down to healthy tissue and the cervix closed by a stitch before removal of the uterus. Now the patient is enjoying comparative good health from occasional curetting. This case was of interest on account of the question of diagnosis. He had the diseased tissue examined carefully with the microscope by Dr. Thacker, of this city, who pronounced it a spindle-celled sarcoma; yet when he submitted the specimen before the Cincinnati Obstetrical Society his diagnosis was seriously doubted by some of the members. Time, however, brought about the confirmation.

He was also of the opinion that operators would generally use the clamp; he was forced to do so by circumstances, as he first tried ligatures but could not apply them safely. He believed, however, there was one possible source of danger in the clamp. One of his patients, who was markedly anæmic, died from shock in less than two hours after the operation. There was no hemorrhage. Was the shock due to the clamp? He regarded it more painful than the ligature.

His first two cases he treated with the antiseptic tampon and subsequent irrigation. He did not do so any more, because it rendered necessary the removal of the gauze. He did not, however, agree with the previous speaker that the vagina should not be washed out. The cautious use of the irrigator could not but be successful, without danger of entering the peritoneal cavity.

Dr. Vander Veer said the first paper was a comfort to him, but he thought vaginal hysterectomy would always be limited to cancer. Up to two years ago he had unfortunate experience in cancer of the cervix. He made the high amputation of the cervix with the galvano-cautery. Four of these cases did well at first; but in all the disease returned, so that he has since then stopped the operation. Since that time he saw seven cases, which were, however, not in a condition for operation—except one; she was a typical case for operation, but absolutely refused. He thought, however, that in future the patient would submit. As regards the clamp, he thought it possessed no advantage over the ordinary long forceps.

In connection with Dr. Carstens' case he would report the following: A married lady, twenty-nine years of age, was under treatment for two years for irregular menstruation and sterility. The physicians who examined her could find no cervix. Finally one found a small opening, which he dilated. The suffering then became less, and after that the patient became pregnant. She was then well for about five months, when she complained of great pain in the inguinal region. Her physician said she had an abdominal tumor. The speaker saw her April 10, 1889, a month later. A tumor of irregular outline could be felt in the abdomen; the bowels were irregular and she vomited a greenish substance. Upon vaginal examination no cervix could be found, nor an opening that would pass the smallest probe. Finally the vomiting was relieved and the bowels moved after small doses of calomel, but she suffered great pain and emaciated rapidly. She was then removed to the hospital for the purpose of performing abdominal section. The irregular mass seemed to be the pregnant uterus; it was aspirated but no fluid followed. The temperature was from 98°–101°, the patient retained nothing, grew weaker and weaker, so that the speaker hesitated to operate. She died May 16, 1889. At the autopsy it was found that she was five months pregnant. By passing a fine probe through the inner os the mucous membrane could be made to protrude into the vagina. To the left was a tumor, six by eight inches, with a pedicle, but attached to everything, obliterating the rectum by pressure. It was a round cell sarcoma; the stroma was very distinct. It could have been removed.

Dr. Price said, to him Dr. Carstens' case was of interest because he had two similar experiences. One case occurred eighteen months ago. The lady had engaged a physician when she was about four to six months gone to attend her in confinement. He accidentally discovered a tumor completely filling the pelvic cavity, and counselled the induction of premature labor. Afterwards she consulted the speaker, who thought it was either a dermoid or fibroid gravitating into the left broad ligament. He did not wish to make it an excuse for a Cæsarean section by opening the abdominal cavity, and therefore incised the vaginal vault and delivered a tumor the size of a child's head. It had a broad pedicle, and from the character of the pedicle he thought it was an ovarian sarcoma. He transfixed and tied the pedicle, but, although he drew the ligatures as tightly as possible, he found it would not hold. He then applied the hemostatic forceps and cut the tumor away. No trouble resulted.

The following day he was called to see a young patient who had three children. The attending physician regarded it as a case of extra-uterine pregnancy, but the speaker was confident that the gentleman had erred in diagnosis, because the uterus was too large for an extra-uterine pregnancy. He thought it was a small ovarian cyst. The other physician insisted that he was correct, and urged the removal of the growth, no matter what it was. As an operation was not contra-indicated, the speaker opened the abdomen the next morning and removed a small ovarian cyst, which was adherent. The patient continued in her pregnancy.

He said he often removed small tumors during pregnancy, and as often urged the removal when it was objected to. He was satisfied that puerperal fever was often due to a traumatism caused by the presence of small tumors. He remembered an instance where a woman had a small dermoid. Five years later he treated her for puerperal fever, the only case of puerperal fever he had, but he did not call it so, as it was due to a traumatism. He believed many women died of suppuration or rupture of a small tumor in labor.

Dr. Carstens' case was interesting, and the course pursued was a wise one. It was, however, scarcely necessary to apply the ligature tó the tube as long as it was not diseased. If the tubes have any function in menstruation it is better to leave them intact. The reporter hesitated to remove the other tube and ovary, which was perfectly correct, as there was no reason for unsexing the woman completely.

These growths are interesting conditions; they grow as rapidly during pregnancy as at any other time. These cases are sufficiently numerous to impress one with the importance of early interference. Just lately he saw a case where he urged the earliest possible removal of the tumor. The physician in attendance delayed an operation for a few days, probably because he wanted to give the case further study. The patient became much worse; finally the speaker was engaged to operate at three o'clock one afternoon, but at half-past two she had already died.

Dr. Hoffmann desired to refer again to the value of drainage in vaginal hysterectomy, to which Dr. Wathen objected on account of its alleged danger. It is singular to advise it in simple abdominal section and yet regard it as dangerous in so large a cavity as the vagina. There is no danger of washing up anything into the peritoneal cavity if the return catheter be used. No water can ascend, because the stream must absolutely come out. Borated hot water is an excellent solution for this purpose.

The use of the clamp in abdominal hysterectomy is not unsurgical, because it affords the safest means of controlling hemorrhage. The modification of Dr. Price simply prevents the ingress of dirt into the peritoneum. The word "ideal" had been used in reference to some of these operations. He did not know what "ideal" meant in this instance, but if the clamps gave better results that was the ideal operation. The difference in structure between the uterus and an ovarian pedicle is a sufficient excuse for the difference in methods of controlling hemorrhage. The uterus is compressible and elastic, hence the ovarian ligature will not hold the stump in hysterectomy. The metal clamp gives force and power to control the resistance of the uterus, and is the best means of getting rid of the oozing after the stump is tied in the abdomen and the peritoneum is shut off. The great bugaboo of sloughing has entirely disappeared, and absolute dryness is attained. Owing to the traction of the pedicle on the abdominal walls, a great thing is to keep the part at rest, with the patient lying on her back.

Dr. Wathen still insisted upon his first remark, that in some cases there is no vaginal drainage if the vault of the vagina is closed and a tube used. Martin, in this way, had imperfect drainage, but the clamps permit a perfect drainage. It is true, the danger of entering the peritoneum in washing out the vagina does not exist with the vault closed, but then it is not necessary for the effect it may have on a little raw surface. If the vaginal vault be left open, any one who understands anything about the law of physics, must admit, the return current cannot be so great as at once to throw all the fluid injected out of the vagina again. If anything be thrown with any force into the vagina it may carry with it a certain amount of necrosed tissue into the peritoneal cavity.

Dr. Potter understood by the term "ideal" simply a question of results. The question of ideality comes in the paper read by Dr. Montgomery. The plan of Fritsch and Martin of suturing the vaginal vault may be ideal surgery as far as skill in operating is concerned, but it increases the danger from delay in doing that act. The clamp enables less expert operators to get the same results.

In regard to supra-vaginal hysterectomy, Bantock's results settle the whole question. Two years ago Bantock reported 62 cases of hysterectomy, 57 of these by the extra- and 5 by the intra-peritoneal method. Of the former 45 recovered and 12 died; of the latter 1 recovered and 4 died. A man who has such experience may speak with authority.

Dr. Hall (Cincinnati) exhibited a clamp devised by himself to secure the broad ligaments. Some instruments were too heavy and bulky, hence he devised a new clamp which had a double curve. The blades are separate and close just as an obstetric forceps; first the posterior blade is introduced and then the anterior, a projection at the end of one blade prevents any tissue from slipping beyond it. After the instrument is locked and in place, only the end of the handle projects, but being curved towards the thigh is out of the way. If the handles of a clamp are too short they are in the way during an operation. As for the rest he endorsed all that had been said in favor of the clamp in supra-vaginal hysterectomy by Dr. Price.

THE PRESIDENT exhibited a large fibroid of the ovary which was sent by Dr. Dunlap by express and had just arrived. As he had no history of the case he could give no further particulars.

DR. MONTGOMERY had a few remarks to offer on the other two papers. He commended the action of Dr. Carstens in his case. During pregnancy congestion of the pelvic viscera occurs and the tumor grows more rapidly; its weight may subsequently make an obstacle to the delivery of the patient. Hence at term either embryotomy or Cæsarean section may have to be performed. For these reasons an early operation is preferable. The removal of these growths has little influence on pregnancy; even the removal of both ovaries may not interfere with the completion of pregnancy. He reported a case of this kind in a paper read before the Pennsylvania State Medical Society.

In regard to Dr. Price's paper he would say that the first indication is to save the life of the patient. The intra-peritoneal method of securing the stump is more dangerous than the extra-peritoneal, but the objection to the latter is that the stump exerts more or less traction. The convalescence is also more prolonged, because a portion is left to granulate. Hence it is desirable if possible to secure the stump in other ways. In one case some years ago he endeavored to secure the stump by making a flap operation, stitching the surface together by ligatures; yet there was so much hemorrhage that it became necessary to bring up the stump and secure it in the lower angle of the wound. Other methods of sewing up the stump in small portions, as practiced by Marcy, have shown good results. Another method is the ligature of the uterine arteries; if we are enabled to do this it controls hemorrhage and shortens convalescence.

He was obliged for the discussion on his own paper. He was not particularly wedded to his own clamps; one set was said to be too long, but if they were brought close to the side of the pelvis they would secure the ligaments better than smaller clamps. In tamponing the vagina with gauze it was not necessary to distend the canal completely; the gauze was simply to act as a method of drainage. The clamps on either side may be removed after twenty-four hours, after which irrigation may be practiced with hot water or an antiseptic solution. The acid sublimate of Laplace is very good because it is not corrosive. He did not believe the clamps could be held accountable for the death in Dr. Reed's patient. There is some shock, it is true, but not much greater than after the use of a ligature.

As for the danger of irrigation, he thought there was none, because after the third day the peritoneal surfaces in the vagina are glued together.

DR. PRICE referred once more to the objections raised by Dr. Wathen against vaginal irrigation after hysterectomy, which he could not endorse, because the necrotic tissue ought to be washed away.

In reference to the statistics quoted by Dr. Potter, he would remark that the latter did not do Bantock full justice in his supra-vaginal hysterectomy operations. Dr. Bantock had seventy-four operations with a mortality of twelve, including two or four successful enucleations.

The uterine tissue is different from any other; it shrinks very fast, requiring a frequent turn of the key of the wire clamp. The stump may be perfectly white from the constriction, and yet in a few minutes become reddened again from the ingress of blood. He had been compelled to turn the key at least six times before controlling hemorrhage. No operator could successfully manage such a stump with a ligature. The results of Koeberle's method were fourteen per cent. better than the intra-peritoneal. Schroeder and Martin had bad results, and the most recent reports are even worse. The objections to this operation resulted from this bad record due to the intra-peritoneal method. Tait objected to the method twelve years ago, and called it murderous. The improved results are due to men who wholly confined themselves to the extra-peritoneal method: Keith only lost 3 out of 40; Tait himself had 42 operations without a death; Bantock only lost 12 out of 72. This record is as good as that of ovariotomy—even better. Hence the extra-peritoneal is the ideal operation, because all dirt and filth is left outside. He would not have it inferred, however, that we should operate on every fibroid tumor of the uterus that comes to our notice. His operations amounted to only about one in twenty cases. Certain cases, however, demand early attention; sarcomatous changes demand immediate action, delay is dangerous. Here we could not be too bold; the results would be better if the operation were done early. He did not wish to counsel heroic measures for everybody; not everyone has the "abdominal instinct." Supra-vaginal hysterectomy is by no means a simple, but a terrrible operation.

Dr. C. Cushing, of San Francisco was to read a paper on

Sutures and Ligatures: What Material Shall we Use?

but owing to his absence it was read by the Secretary.

The paper contained valuable hints at preparation of catgut and silk. It also described the indications for the employment of these two materials, as well as silver wire.

On account of the absence of the author, however, this interesting essay was not discussed.

One of the most interesting papers of the whole series was by **Dr. W. H. Myers**, of Ft. Wayne, Ind., on

A Few Considerations on Peritoneal Effusions after Intra-Peritoneal Operations.

[This paper is published in full in another column of this issue.]

The last paper of this series was from the pen of **Dr. Hampton E. Hill**, of Saco, Maine, giving his

Reasons for Drainage in Ovariotomy.

The author gave a *résumé* of his personal experience in ovariotomy. The remarkable point was that he had already performed a number of operations before he saw anyone else perform the operation. Owing to his great attention to details, and especially to drainage, he was able to present the brilliant record of twenty-six operations with twenty-five recoveries—certainly a record of which any beginner might be proud.

DISCUSSION.

Dr. Montgomery was greatly interested in both papers. Dr. Myers' was excellent; in fact, it was so thorough and scientific that it precluded any discussion. Dr. Hill's excellent results from drainage would certainly please Dr. Price, its strongest advocate. The speaker thought, however, that no procedure should be adopted when it was unnecessary. It is important to decide when drainage shall be used and when it may be omitted. He would not resort to it if he knew a case would get along just as well without it. If there are no adhesions, no pus, no handling of the abdomen, there is no necessity for drainage; if there is any probability of septic material remaining behind, drainage should be instituted. The external dressing should be frequently removed, but if the rubber dam be used we may permit the dressing to remain until it is necessary to remove it from the wound. As regards antiseptic material, he considered the bichloride of mercury objectionable, because it caused a certain amount of irritation on everything with which it came in contact. For this reason he preferred the boro-glyceride as a dressing. He thought this was better than treating it dry.

Dr. Van der Veer also complimented both papers. He regarded Dr. Myers' paper very able, but difficult to discuss. It showed how authors change their views. Dr. Hill's suggestions were good, but rather too exclusive. The speaker did not use drainage-tubes as often as formerly. He never had confidence in catgut as a ligature, and therefore rejected it; but when the ligature was safe and there was no interference, no drainage-tube was necessary. Adhesions, however, required it. He used a moderate-sized tube, and fastened it so in the lower angle of the abdominal wound that the last suture and the one next above it formed a loop, in which the tube was held. He covered it with iodoform gauze, having this changed as soon as it became soiled. Two weeks ago he removed a multilocular cyst which adhered to everything; he inserted a drainage-tube and left it in six days, after which everything went well. He used a glass drainage-tube, but it must not be too small. Eight months ago he introduced one for tubercular peritonitis; on the fifth day it was so firm and fixed that he could not remove it. Hill's results were exceedingly pleasing: twenty-six cases with twenty-five recoveries and twelve ovariotomies performed without having seen any one making the operation!

Dr. Hoffmann, referring to Dr. Myers' paper, said it was not true that a healthy peritoneum might absorb germs and yet show no bad results. Pus cases are the quickest to react, and get well more speedily than where there is no pus; here pathology and practice do not agree. It does not follow that because there is no peritonitis there is no danger from absorption. A peritonitis is an inflamed substance that does not absorb; it may be present when it is not recognized. Hence the position taken by the first essayist, making a difference between simple serous effusion and that of peritonitis, was a correct one; the paper dealt with facts.

In regard to the second paper, it might be said that the subject of drainage was almost hackneyed; but this was not so. When Martin loses fourteen out of seventy-seven cases, and other operators have results just as bad, it shows the importance of drainage. The fluid must not flow from the pelvis as from a roof, but it may be removed from the cavity with a syringe. The introduction of an antiseptic fluid is a dangerous thing. Bichloride of mercury, at least, should be kept out of the abdominal cavity. The speaker once had violent dysenteric symptoms from its use in one case, but, fortunately, the patient got well. Sulphurous acid in the strength of 1 : 10 is as good an antiseptic as the bichloride; a gas develops which penetrates all the tissues. He would hesitate to introduce boro-glyceride on account of its hygroscopic qualities. The after-treatment requires little attention; the rubber dam obviates all this.

Dr. Reed said he was a hearty advocate of drainage; however, he did not use it so largely because he feared the large opening at the end of the tube. Hence he had tubes constructed shapened like test-tubes, the closed end pierced with small perforations. The advantage of irrigation and drainage was well illustrated in a case he had a few days ago. He removed a papilloma of the ovary weighing forty-six pounds; there was secondary inflammation of the peritoneum. The discharge of serum was enormous. The wound was dressed with a rubber dam and antiseptic cotton and the tube injected every two hours with a five per cent. solution of sulphurous acid. The patient is getting well.

Dr. Hall said, although he favored drainage, he had not had as good results as Dr. Hill. In certain cases drainage will not be necessary, yet if the patient dies the operator will be censured. He recently had two cases. One was an intra-ligamentous tumor weighing twelve pounds; the enucleation was very difficult. The patient lived two days. The drainage-tube here did good service, but nevertheless he was severely censured by all the parties interested, except one. In another case he did not care to operate on account of extensive adhesions. He had to make a long incision and remove almost the entire omentum. Here he also used drainage, and the patient recovered in eighteen days. The cavity was pumped out every half-hour.

Dr. Price said he highly appreciated both papers, but Dr. Myers was so learned and scientific "that he shot over the heads of the profession." Both papers demonstrated what drainage would do and how patients die without it. If Dr. Dunlap had changed his method and used drainage, instead of seventeen per cent. he would have had a mortality of only seven per cent. Nevertheless, laboring in the wilderness he did unprecedented work. His mortality was less than that of Atlee.

The speaker was of the opinion that a skilled ovariotomist should not do a very simple case; he should turn them over to a beginner in order that he may learn. An important point is that ligatures should always be put in healthy structure, hard on the uterus.

In Dr. Hill's cases the drainage was important. The drainage-tube should always be placed in the most dependent part of the cavity and its condition be watched. The rise of serum was not a bad sign, for it could then be removed. "He liked a wet tube, but wanted it kept dry." It could not be cleaned too often. He could not agree with those who claim that the tube necessitates more labor. It is made up for in time; the convalescence will be more rapid and less troublesome. The dressings should be changed the second day, but there should be no hurry in removing the tube. *When in doubt use drainage.* If the operator is apt to be long in operating he should use salines before the operation, otherwise afterwards.

Dr. McMurtry said one important point had been mentioned by the previous speaker. The tying off of pus tubes is more difficult than many ovariotomies. The involvement of uterine tissue makes it sometimes necessary to remove a portion of this structure also. Freund's method is to introduce clean silk just underneath the surface and then cut off the tissue above it.

Dr. Edwin Ricketts (Cincinnati) said a good method was to take hold of the tube at its insertion in the uterus and strip it towards the distal end. The glass drainage-tube would sometimes become blocked at its lower end; he therefore had tubes so constructed that the edge resting in the cavity was serrated, which kept the end open.

Dr. Price added one thing about suction in the drainage-tube. He had tried everything, but found the long hard-rubber uterine syringe the best.

Dr. Myers said (in answer to Dr. Hoffmann) that the doctrine of healthy tissue destroying germs is now admitted. If not true, how could union by first intention occur? It has been proved by German experimenters that blood is an antiseptic—even as great as boracic acid.

Drainage was first inaugurated by Keith, of Edinburg. The next most prominent advocate was Marion Sims. The object of drainage is simply to prevent the accumulation of serum. There was no disagreement about the use of drainage in septicæmia, etc.; but it answered also another purpose, viz.: when there is shock or prolonged anæsthesia absorption is interfered with. Drainage should be used in cases where the abdominal walls become lax. The use of hot water prevents shock and prevents the action of the poison germs.

Dr. Vander Veer believed that Peaslee antedated Sims in the use of drainage.

Dr. Hill concluded the discussion by saying that he did not advocate any special method, but rejected the rubber dam because in changing the dressing the portion around the tube is exposed. If the tube was long enough, but not too long, the covering of the tube would prevent decomposition of the fluid. Air should be prevented from coming in contact with it before a new dressing was applied. He never saw any trouble arise from bichloride dressings. Instead of a straight tube he preferred it slightly curved, because the latter was better kept in position behind the uterus. To facilitate the egress of fluid from the pelvis he raised his patient on pillows, and also placed one under the nates and another under the knees. Gravity and abdominal pressure would then press it out of the drainage-tube. In selecting a tube he was careful not to have it so long as to press on the bottom of the cul-de-sac, because it would shut off drainage.

Afternoon Session.

A general survey of obstetric operations with their relative indications was the subject for general discussion at this last meeting, the object being to review and narrow down the indications for craniotomy, Cæsarean section, etc. The whole subject had been parcelled out for discussion as follows:

1. Is craniotomy justifiable on living children?

Opened by Dr. Thos. Opie and Dr. G. A. Moses.

2. Its alternatives:

(*a*) Abortion. Dr. W. W. Potter.

(*b*) Premature Labor. Dr. W. H. Taylor and Dr. Jos. Hoffmann.

(*c*) Forceps. } Dr. Jas. P. Boyd.
(*d*) Version. }

(*e*) Cæsarean Section. Dr. E. E. Montgomery and Dr. A. Vander Veer.

(*f*) Laparo-Elytrotomy. Dr. C. A. L. Reed.

(*g*) The Porro Operation. Dr. Jos. Price.

(*h*) Conclusions: A Résume of the Whole Subject. Dr. W. H. Wathen.

On account of the absence of Drs. Opie and Moses, **Dr. Geo. H. Rohe**, of Baltimore, opened the discussion on

The Justifiability of Craniotomy on Living Children.

He called attention to the perplexity of the question. Judgment is exceedingly difficult and experience fallacious. We must take into consideration the circumstances that surround each case. For this reason statistics are often of little value. He would like to lay down the proposition that in obstetrics we have no operation of election. If we could start out with this we would have a much clearer idea of what was to be done in a given case. Unfortunately one circumstance, however, materially changes the otherwise correct determination: an obstetrician is often called in at a time when his powers are limited; if he had been always called before labor began, he would frequently act differently from what he is finally compelled to do. Practically the obstetrician is so placed that he has very little chance to consider the various alternatives to the operation in question. The speaker said he would not dilate upon the indications of the various operations; he left that for the other gentlemen to point out. He would therefore at once endeavor to answer the question as it is put: "Is craniotomy justifiable on living children?" He would say, "Yes, under certain circumstances." If, in the judgment of the obstetrician, the child could be delivered with the forceps, this operation would be out of the question; but when the conjugate diameter of the pelvis is less than three and one-fourth inches this instrument would probably be inefficient. Here would then be the limit of indication for the forceps. Whether version could ever take the place of forceps was doubtful to his mind. If delivery could be accomplished by the feet, the forceps could also generally be used. He would therefore place the limit of the forceps at three and one-fourth inches in the upper and two and one-half inches in the lower diameter of the pelvis.

We are now driven to the alternative of craniotomy or Cæsarean section. He would only consider the former. If a woman has been in labor forty-eight hours and there is a reasonable hope of saving the woman by sacrificing the child, craniotomy would be justifiable. This, operation, if properly done, would have but a slight effect on the health of the mother, and if she should again be pregnant afterwards, a premature labor might be induced with a living child subsequently. This would be one indication: a contracted pelvis where neither forceps nor version could be performed; if the pelvis be too much contracted for the passage of even a dead child, there could be no question of craniotomy at all. Another indication would be where the pelvis is normal but the child abnormal, as in hydrocephalus, etc. Here craniotomy would be justifiable even on a living child in the interest of the mother, because the child would have less of a chance to live. He would entirely dismiss the moral question of waiting for the child's death; no one present, he was sure, would advocate the passive taking away of the child's life in order to waive the responsibility of active interference at the proper time.

It is true the statistics of Cæsarean section are improving, but the mortality is still so great that for the present the less dangerous operation—to the mother—of craniotomy may well be considered. The speaker would not like to address the argument to the individual man or woman. If we put the question, "Is it right to take the life of another?" abstractly, we might say, "No, it is wrong;" in the concrete, however, if we are forced to consider the comparative slight risk to the mother when the child's life is taken, and the great risk to her on the other hand, we might think differently.

The alternatives were next offered for discussion.

Abortion.

Dr. W. W. Potter said that the induction of abortion had but a limited application in the present light of obstetrics. It was probably only justifiable when, owing to previous difficult labors, there was a necessity for preventing the completion of pregnancy, the child having no chance of life even with the induction of premature labor. The dangers of abortion were almost as great as after surgical interference. If pregnancy occurred in a case where a later operation was not possible or dangerous to life, then the induction of abortion might be justifiable.

In the operation strict attention should be paid to antisepsis. The instruments should all be clean, especially the uterine sound. This is the best instrument for the purpose; otherwise it is useless. It should be introduced carefully, in order, if possible, to bring away the ovum entire. If portions of the membranes remain behind the uterus should be carefully curetted.

Premature Labor.

Dr. Hoffmann said in this operation it was, fortunately, not necessary to ride two horns of a dilemma. The induction of premature labor is universally regarded as a justifiable operation; the only trouble is that the discovery of the difficulty is often too late for the operation. It originated first in England, on account of the fearful slaughter of children by craniotomy. Several things are necessary to be considered. We must, in the first place, consider the viability of the child; between six and a half and seven months there is little chance of saving the child, hence it is hardly worth trying at this period. Another question is the diameters of the pelvis; if the pelvis be too small to permit a living child to be born after the seventh month, it is also out of the question. Hence the induction of premature labor is only indicated when the diameters of the pelvis are at least large enough to allow a living child to pass at a period when it is viable.

As regards the mode of inducing labor, there are several methods, most of which are objectionable except one. First, the injection of fluids is a serious objection on account of the danger to the mother. Secondly, the induction of labor by means of dilators, such as Barnes' is now not much resorted to on account of the great unnatural interference and the slowness and uncertainty of their action. The best method is the introduction of the soft bougie. The hard or metal bougie is not so good, because it might rupture the membranes, which is not desirable on account of the danger of prolapsed cord. The soft rubber bougie is therefore preferable; it should not, however, be too short, as most of the ordinary bougies are, but at least seven inches long. The vagina can be packed around the instrument; this is itself a means of assisting the contractions brought on by the presence of the bougie in the uterus.

The speaker related two cases in which premature labor was induced as an alternative to Cæsarean section. In the first Cæsarean section had been recommended. The woman had been previously delivered of one living child, but after a very serious labor. The last child was safely delivered two weeks before time, after inducing labor. In a second case Cæsarean section had been successfully performed, although the induction of premature labor was practicable. The second time the child was born prematurely and lived ten days.

The President said he had nothing to add to what the previous speaker had said, but as his contribution to the subject would call attention to the care of the premature child. For this purpose he had brought to the meeting a so-called incubator, or couveuse, which he had constructed upon Tarnier's model. He had used this with success several times, and his friend Dr. Stanton was having the apparatus now in use. Its simplicity was such that it could be constructed in a very short time by any carpenter.

Forceps and Version.

Owing to the absence of Dr. Boyd, who had, however, sent in his contribution, the discussion on the use of the forceps and version was omitted.

Cæsarean Section.

This important subject was ably handled by **Dr. E. E. Montgomery.** He remarked that we must not forget that the lives of two individuals must be held under consideration. The child, as well as the mother, has an inherent right for a chance of life that we must recognize. Cæsarean section has the justification of antiquity for its performance, but Christianity more particularly emphasized the moral necessity. Formerly other measures gave a smaller maternal mortality, but since the improvements in Cæsarean section have reduced the mortality, the attendant has the right to assume the risk. The life of the child must be respected because the mother has accepted the conditions to necessitate the operation. The essayist then cited the well-known case of Mrs. Reybold, quoted by Meigs, who had previously been delivered by craniotomy and afterwards successfully by Cæsarean section. When the conjugate is from two and one-half to three and one-fourth inches craniotomy should be abolished. In craniotomy all the children are sacrificed and not all the mothers saved. But to be successful Cæsarean section should not be adopted as a last resort; the woman must be in a good condition. Cæsarean section is often done because the patient will not outlive craniotomy, when it is too late.

The essayist then quoted the statistics of various hospitals to show the different percentage of mortality. In the United States the mortality has been thus far 53 per cent., whilst in Germany it is only 15 per cent. The records of cases of cattle-ripping are more favorable than the operation of Cæsarean section performed in the United States, the mortality being four in nine. In self-inflicted Cæsarean section the result has been even more favorable. The reason is because the women were in good condition; if one operation is performed after the other the mortality is bound to be great. In some cases the Porro operation is more desirable, but its disadvantage is that it destroys the power of procreation. Other disadvantages are the slower recovery and greater mortality. Since the adoption of the Sänger method the mortality from Cæsarean section has been greatly lessened. In craniotomy there is always the destruction of one life, hence the mortality of both must be over 50 per cent., and can never fall below it. The latest percentage for Cæsarean section is 7.1 per cent. After quoting a number of statistics to prove his point the author concluded that

1. Craniotomy on the living child is unjustifiable.

2. Cæsarean section should be performed with a living child, when it cannot be otherwise extracted alive.

3. It is preferable to a Porro operation in most instances.

4. The mother must be in good condition, and, if possible, it should be performed prior to labor.

Dr. Vander Veer agreed substantially with what had just been said. Cæsarean section is almost inseparable from other operations. The abdominal surgeon must be conversant with each. The question of time is of the greatest importance; procrastination is the greatest element of danger. He also believed craniotomy on the living child to be unjustifiable. Good abdominal surgeons are now to be found in all parts of the country. Unfortunately many of these cases are left in the hands of ignorant midwives until it is too late. The statistics are favorable for Cæsarean section against the Porro operation and laparo-elytrotomy. One argument raised against it was that the children born in this manner are necessarily short-lived. This is not true if the operation is timely.

Laparo Elytrotomy.

Dr. Chas. A. L. Reed said only two ideas could actuate a person to perform laparo-elytrotomy: the first was to save the child's life, the second to avoid opening the peritoneal cavity. The first idea still obtains, and is the same as in Cæsarean section and the Porro operation; the second reason, which has been claimed as its great advantage over the last two operations, has ceased to be of force at the present day. The speaker had no personal experience with it, except in the opening of an abscess, and did not favor it.

The Porro Operation.

Dr. Price in the outset called attention to the unreliability of statistics. He could produce such as showed its advantages over the Cæsarean operation. The Porro operation is only a removal of the uterus added to a Cæsarean section. It has been supposed that this would increase the mortality, but this is not true. It is simply a supra-vaginal hysterectomy combined with pregnancy. Whatever may have been the experience elsewhere, in Philadelphia it has been shown that this position is tenable. The results of men who have not the "abdominal instinct" are not to be considered. Cæsarean section is always followed by an ever-present menace.

It is truly said that the Porro operation destroys the power of procreation Is woman only to be considered as a procreative organism? The interest of society demands the sterilization of such a woman. We are not justified in exposing a woman again to the same dangers; and as far as ultimate results are concerned she is afterwards in as good a position as a childbearing woman. The advantages of the Porro operation are:

1. There is no complication of adhesions.

2. There is no implication of important viscera, hence less hemorrhage.

3. There is less shock than in Cæsarean section.

4. There is less danger of leakage than in Cæsarean section. Hence it is a less formidable operation.

Dr. W. H. Wathen began to sum up the entire question, but on account of indisposition had to break off in the midst of his subject.

This concluded the scientific program of the meeting. The President then congratulated the Association upon the result of its labors in the past three days and thanked the members for the great courtesy they had always shown him, for the honor of having made him its first President, and for the unusual honor of having elected him a second time. He then introduced the newly-elected officers as follows:

President—Dr. E. E. Montgomery, of Philadelphia.

First Vice-President—Dr. W. H. Myers, of Ft. Wayne, Ind.

Second Vice-President—Dr. R. L. Banta, of Buffalo, N.Y.

Secretary—Dr. W. W. Potter, of Buffalo, N.Y. (re-elected).

Treasurer—Dr. X. O. Werder, of Pittsburgh, Pa. (re-elected).

Executive Council—Drs. A. Van der Veer, of Albany; W. H. Wathen, of Louisville; Dr. C. A. L. Reed, of Cincinnati; H. E. Hill, of Saco, Me.

After the thanks of the visiting members had been tendered the President, Dr. W. H. Taylor, for the elegant reception at his home, affording the visitors an opportunity of becoming acquainted with Cincinnati's most prominent physicians, as also the thanks to Drs. Reed, Stanton, Hall, and Wenning for their efforts in entertaining the guests, the Association adjourned to meet in Philadelphia on the third Tuesday in September in 1890.

NOTES.

The Proceedings of the American Association of Obstetricians and Gynecologists show that its members are truly a working body. The papers were all of unusual excellence, and the discussions profitable and entertaining.

* * *

Abdominal surgery had the lion's share of all the good things. Obstetrics and gynecology, except in their bearings to abdominal surgery, were relegated to "back seats." To judge from the subjects discussed at the meeting just closed, a more proper name for this society would have been "American Association of Abdominal Surgeons." We do not know whether to rejoice over or deplore this tendency; certain it is that those who are most aggressive in opening up the abdomen are also most progressive in the writing of papers and in "opening up" discussions.

* * *

The large attendance of the profession of this city and vicinity affords ample proof of the interest which the Association has excited by its presence here. This is the more remarkable as no special efforts were made to advertise the meeting.

* * *

The President's reception was an elegant affair and well attended. The large circle of ladies present was a noteworthy feature and added special luster to the occasion. We have never seen so many physicians' wives present at any one gathering.

* * *

The presence of Dr. Dunlap, of Springfield, Ohio, was a rare treat to all who had the pleasure to hear and see this pioneer ovariotomist of the present day. His reminiscences of his first operations, nearly fifty years ago, were listened to with breathless interest. A splendid tribute to his work was paid him by his distinguished Philadelphia brethren, Price and Hoffmann.

* * *

We understand that fifteen new members were admitted to this Association at the late meeting. One of the conditions is the presentation of a satisfactory paper or thesis in one of the branches of obstetrics, gynecology, or abdominal surgery. These, together with the papers read at the meeting and others contributed by members unable to attend, will cause the next volume of "Transactions" to swell to at least double the size of the one issued for last year.

W.H.W.

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HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending Sept. 28, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	...	..	...	..	...	..	1
2nd	...	..	...	..	...	1	3	..	...	..	...
3rd	...	..	...	..	...	..	2	..	...	..	...
4th	...	..	...	..	...	..	1	..	...	..	1
5th	...	..	...	..	...	..	...	..	...	..	...
6th	...	..	...	..	...	..	...	..	...	..	...
7th	...	..	...	..	...	..	1	..	...	..	...
8th	6	..	...	..	...	..	...	..	...	..	1
9th	...	..	...	..	...	..	...	..	...	..	...
10th	...	..	...	..	...	..	3	1	...	..	...
11th	...	..	...	..	...	..	1	..	...	..	...
12th	...	..	...	..	...	1	4	1	...	..	...
13th	...	..	...	..	...	..	...	..	...	..	...
14th	...	..	...	..	...	..	...	2	...	..	...
15th	...	..	...	..	...	..	3	..	...	..	...
16th	...	..	...	..	...	..	1	..	...	..	...
17th	...	..	...	..	...	..	3	..	...	..	...
18th	...	..	..	..	...	..	2	1	...	..	...
19th	...	..	...	..	...	..	...	..	...	..	...
20th	...	..	...	..	...	..	4	..	...	1	...
21st	...	..	...	..	...	..	4	4	..	..	...
22nd	.	..	...	..	...	..	2	..	...	1	...
23rd	...	..	1	..	...	..	5	1	...	..	...
24th	...	..	...	..	...	..	1	1	...	..	...
25th	...	..	...	..	...	..	...	1	...	..	...
26th	...	..	...	..	...	..	...	..	...	..	...
27th	...	..	...	..	...	..	1	..	...	..	1
28th	...	..	1	..	...	..	2	1	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	3	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	1	...	..	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	..	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	6	..	2	..	...	2	47	14	...	2	4
Last week	...	..	2	1	1	..	36	10	...	4	1

The following is the mortality report for the week ending September 28, 1889.

Croup	4
Cerebro-spinal Meningitis	2
Diarrhœa	3
Dysentery	1
Diphtheria	14
Entero-Colitis	4
Typhoid Fever	2
Whooping Cough	2
Other Zymotic Diseases	3—35
Cancer	3
Phthisis Pulmonalis	15
Other Constitutional Diseases	6—24
Apoplexy	1
Bronchitis	1
Convulsions	6
Heart Disease	5
Liver Disease	1
Peritonitis	2
Pneumonia	1
Other Local Diseases	29—46
Premature Birth	4
Puerperal Convulsions	1
Other Developmental Diseases	7—12
Accidental	4
Deaths from all Causes	121
Annual death rate per 1000	19.36
Deaths for corresponding week in 1888	113
Deaths for corresponding week in 1887	97

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 38 observers (embracing 34 counties) show the following diseases to prevail for the week ending Friday noon, September 27, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Diarrhœa	22	59
Bronchitis, acute	14	29
Dysentery	14	26
Intermittent Fever	12	23
Tonsillitis	10	24
Remittent Fever	10	22
Typhoid Fever	9	13
Scarlet Fever	6	10
Rheumatism (acute)	6	6
Erysipelas	6	6
Typho-Mal. Fever	5	18
Cholera Infantum	5	7
Diphtheria	4	5
Whooping Cough	4	4
Cholera Morbus	3	6
Pleurisy	3	3
Consumption (Pul.)	1	1
Pneumonia	1	1
Croup, membranous	1	1
Measles	0	0
Puerperal Fever	0	0
Cerebro-Spin. Men.	0	0

REMARKS.

Diphtheria reported by observers at Coolville, Rio Grande, Rocky River, and Gillespieville. Reported by health officers: Columbus, 10 cases, 3 deaths; Toledo, 4 cases; Dayton, 11 cases, 2 deaths; Middletown, 4 cases, 1 death; Fostoria, 3 cases, 1 death; Youngstown, 1 case; Hamilton, 13 cases; Mansfield, 1 case.

Scarlet Fever reported by observers at Madisonville, Delta, Atwater, Jackson, Berkshire, Rocky River. Reported by health officers: Toledo, 4 cases; Fostoria, 1 case; Columbus, 2 cases; South Charleston, 1 case; Youngstown, 2 cases.

Typhoid Fever reported by observers at Plain City, Mutual, West Milton, Goshen, Delta, Atwater, Madisonville, Berkshire, and Coolville. Reported by health officers: Toledo, 4 deaths; Hamilton, 1 case; Youngstown, 1 case; Fostoria, 1 case; Lorain, 3 cases; Conneaut, 2 cases, Milford, 1 case; Delphos, 1 case.

C. O. PROBST, M.D., Secretary.

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

TERMS, $3.50 PER ANNUM IN ADVANCE.

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DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, October 5, 1889.

The Week.

SANITARY RESORTS.

As luxurious modes of travel on rapid transit roads are developed, built and put in motion, hope—ever cheering, never despairing—wiles the invalid to some old or new sanitary resort, that is either set forth by enthusiastic friends, or gorgeously pictured advertisements of certain places with special advantages of climate, water or other health-restoring element. The most ready to grasp at these apparent advantages are the victims of tuberculosis, and often the attendant physician is only too ready to acquiesce and lend a listening ear to the suggestions of a change.

The climates, waters, accommodations and other specific advantages afforded for invalids in Minnesota, Michigan, Colorado, California, Arkansas, Tennessee, Florida, the Carolinas, Virginia, the Adirondacks and Bahamas are all in turn discussed, and in the minds of all concerned the best place is selected for effecting a cure, or at least affording relief to the sufferer. Very often the change is beneficial. The patients' thoughts are removed from their surroundings, and, what is of equal or greater importance, from themselves, while a change of diet stimulates a flagging appetite and weak digestive organs. Not only so, but the patient is at once placed under the immediate observation and direction of a medical attendant who fully appreciates the advantages of a specific course of treatment, which is usually aided in every detail by the consistent coöperation of the patient, and which, too frequently, is in direct contrast with the former whims and often petulant notions of a weakened mind in a feeble body, but blessed with home comforts and surroundings.

These are, in brief, the reasons for a temporary change of habitat for the sufferer from tuberculosis, and fully accounts for the noticeable improvement that usually takes place after a few weeks' residence at any well-conducted health resort.

Unfortunately, such measures are only open to the well-to-do and those in wealthy circumstances. To the great majority of invalids the health resort is out of the question and not to be considered as a therapeutic agent.

However, to very many of those in moderate circumstances, we suggest the obtaining a home or accommodations in the west portion of Hamilton county. The humidity of the atmosphere is greater in this locality than in any other part of the entire State of Ohio, while at the same time it is bright, giving it a balmy softness that is peculiarly agreeable to most invalids. This region has an absolute freedom from storms and rapid changes of temperature, the latter being remarkably equable. The Government charts for the past seventeen years show a winter average of 35°, a spring average of 54°, a summer average of 76°, and a fall average of 56°. In the various seasons the thermometer ranges but little above or below that recorded as the average, and is always compatible with bodily comfort and the enjoyment of the recreations and pleasures of life. The prevailing winds are from the southwest, and are never sultry in summer or uncomfortably raw in winter. The norther, northwester and northeaster of more southern climes are here unknown, while cyclones and tornadoes have never made themselves felt.

Proximity to this city ensures an abundant and cheap market, where can be obtained all the luxuries that may be desired for the tickling of the most capricious appetite.

All things considered, there is no geographical location within our knowledge that offers so great an inducement for the location of small sanitariums and health resorts, especially for the tuberculous invalid, as the Ohio River and Millcreek bluffs west from this city and within the county of Hamilton.

We have good reason to believe that the geographical location of the Cincinnati Sanitarium at College Hill has had very much to do with the very large measure of success that attends the treatment of patients in that well-managed institution.

HOW PRESIDENT DWIGHT PAID HIS DOCTOR.—LL.D.—The editor of the *New England Medical Monthly* says:

"That ancient, orthodox, conservative Yale, the mother of statesmen, scientists, and scholars, recently conferred the degree of *doctor utriusque juris* on a medical practitioner in consideration of professional services rendered in the family of the President of the college."

If we are not mistaken a similar reward-of-merit card was given in a similar manner not long ago by Prince von Bismarck of Berlin.

THE Illinois State Board of Health is engaged in the preparation of a NEW OFFICIAL REGISTER of physicians and midwives, and in the interest of all concerned requests those who have changed their places of residence or removed to other towns since February, 1886, to notify the Secretary, at Springfield, of such changes without delay. This is an all-important matter to the members of the medical profession in Illinois, and it is hoped there will be an immediate response from those having knowledge of removals.

SOCIETY NOTICES.

THE SOUTH-WESTERN OHIO MEDICAL SOCIETY will hold its first semi-annual meeting at the Burnet House, in Cincinnati, October 9 and 10, 1889. A choice programme of papers and discussions has been arranged for, a portion of which we published last week.

ACADEMY OF MEDICINE.—

October 7, DR. G. A. FACKLER will read a paper on "Calomel as a Diuretic."

CINCINNATI MEDICAL SOCIETY.—

October 8, DR. F. O. MARSH, "Recent Anatomical Study of the Spinal Cord, and Paths of Conduction;" DR. PHILIP ZENNER, "Clinic Significance of the Tendon Reflexes."

October 15, DR. F. C. GORES,———.

October 22, DR. THEO. BANGE, "Milk Inspection of Cincinnati, with Suggestions for Dairy Reform;" PROF. KARL LANGENBECK, "Milk Adulteration, and the Milk Supply of Cities."

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations.
LEONARD FREEMAN, M.D.,
J. C. OLIVER, M.D.,
OTIS L. CAMERON, M.D.,
F. O. MARSH, M.D.,
Curators and Microscopists.

"COCA" has maintained its reputation as a powerful nerve stimulant, being used with good results in nervous debility, opium and alcohol habit, etc. The highly variable character of the commercial drug makes it uncertain however. Robinson's Wine Coca (see adv. page 9), we believe to be a uniformly active article, it being prepared from assayed leaves, the percentage of Cocaine being always determined by careful assay.

SOUTHERN TRI-STATE MEDICAL ASSOCIATION.

The following papers have been promised for the meeting of the Tri-State Medical Association:

Demonstrations with the Microscope. Prof. James A. Reeves, Chattanooga.

Stricture. Prof. Daniel H. Howell, Atlanta, Ga.

———. Dr. F. B. Sloan, Cowan, Tenn.

A Case of Typhoid Fever with Subnormal Temperature and Subnormal Pulse. Dr. A. S. Wiltse, Kismet, Tenn.

A Plea for the Medical Education of Females, Dr. Chas. P. Gordon, Dalton, Ga.

Choleo-Cystotomy, with a Case. Dr. E. E. Kerr, Chattanooga.

Report of a Case. Dr. Wm. T. Blackford, Graysville, Ga.

———. Dr. W. C. Maples, Bellefonte, Ala.

Physiology of the Heart and its Valves. Dr. W. L. Grahagan, Chattanooga.

Relation of the Specialist to the General Practitioner. Dr. F. W. Skillern, Pikeville, Tenn.

Some Points in the Diagnosis of Skin Diseases. Prof. E. A. Cobleigh, Chattanooga.

Imaginary Foreign Bodies in the Throat. Dr. Max Thorner, Cincinnati, O.

———. Dr. J. B. Cowan, Tullahoma, Tenn.

Antiseptic Midwifery. Prof. F. W. McRae, Atlanta, Ga.

Other papers of interest will be presented.

Prof. Robert Battey, of Rome, Ga., has promised to be present.

This meeting will be held in response to the following call issued by a number of societies in Alabama, Georgia, and Tennessee:

"The members of the medical profession in Alabama, Georgia, and Tennessee are requested to meet in Chattanooga on the third Tuesday in October, for the purpose of forming a Tri-State Medical Association. All will be admitted to the meeting of the Association, but the membership will be restricted to graduates of regular medical colleges in good standing."

A Constitution will be adopted at this meeting which will regulate all matters pertaining to the society.

The meeting will be called to order at 10 a.m. Tuesday, October 15, at the Chamber of Commerce. The sessions will continue two days.

AMERICAN PUBLIC HEALTH ASSOCIATION.

The Seventeenth Annual Meeting of this Association will be held in the Hall of the Brooklyn Institute, Washington and Concord Streets, October 22, 23, 24, 25. Addresses of Welcome will be delivered by Hon. Alfred C. Chapin, Mayor, on behalf of the city, and by Alexander Hutchins, M.D., on behalf of the medical profession.

The following topics have been selected for consideration at the meeting:

1. The Causes and Prevention of Infant Mortality.
2. Railway Sanitation.
   (*a*) Heating and ventilation of railway passenger coaches.
   (*b*) Water-supply, water-closets, etc.
   (*c*) Carrying passengers afflicted with communicable diseases.
3. Steamship Sanitation.
4. Methods of Scientific Cooking.
5. Yellow Fever.
   (*a*) The unprotected avenues through which yellow fever is liable to be brought into the United States.
   (*b*) The sanitary requirements necessary to render a town or city proof against an epidemic of yellow fever.
   (*c*) The course to be taken by local health authorities upon the outbreak of yellow fever.
6. The Prevention and Restriction of Tuberculosis in Man.
7. Methods of Prevention of Diphtheria, with results of such Methods.
8. How far should Health Authorities be permitted to apply known Preventive Measures for the Control of Diphtheria.
9. Compulsory Vaccination.
10. Sanitation of Asylums, Prisons, Jails, and other Eleemosynary Institutions.

HOW MUCH SHOULD A CITY PAY ITS HEALTH OFFICER.—The Michigan State Board of Health has recently published a paper by its Secretary, Dr. H. B. Baker, in which he asks the question how much the average city or village can afford to pay its health officer. He answers this question in this way: Statistics which cannot be questioned prove that in those localities in Michigan where the recommendations of the State Board of Health are carried out, about eighty per cent. of the deaths from diphtheria and scarlet fever are prevented by the thorough isolation of all infected persons and the thorough disinfection of all infected persons, things, and places. Statisticians usually value a person in the prime of life as worth to the community about one thousand dollars. Dr. Baker thinks that in a village of fifteen hundred inhabitants a health officer can easily save the lives of two children and one grown person in each year, and he concludes that such a village can well afford to pay its health officer two thousand dollars for the prevention and restriction of scarlet fever, diphtheria, and typhoid fever,—and make money by the transaction.

ANTIPYRIN IN INCONTINENCE OF URINE.—There seems to be no limit to the beneficial effects to be obtained from this valuable addition to our therapeutical resources. Several cases of inveterate incontinence of urine in children between four and eight years of age, are reported to have been immediately relieved and ultimately cured by the administration of from ten to fifteen grains of the drug at six o'clock in the evening, the dose being repeated at eight or nine o'clock. The effects are said to be certain and immediate, and if so it will prove a boon to physicians, who have exhausted their stock of remedies without any adequate result in these troublesome and ofttimes obstinate cases.—*Med. Press and Circular.*

ANTIPYRINE AS AN ANTIGALACTIC.—Salemi (*Bull. gén. de Thérap.*, February 11, 1889) has succeeded in repressing the mammary secretion in a primipara by means of antipyrine after having failed with numerous other agents. He gave eight grains in three doses daily. The secretion was much diminished on the first day, and had wholly ceased on the third day.—*Med. Chronicle.*

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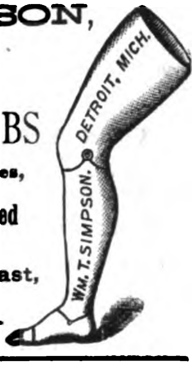
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MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, October 12, 1889. *WHOLE VOLUME LXII.*

Original Articles.

THE GENU-PECTORAL OR KNEE-ELBOW POSITION IN OBSTETRICS.

A Paper presented to the American Association of Obstetricians and Gynecologists

By W. H. Wenning, M.D.,
Cincinnati, O.,

Professor of Obstetrics, Woman's Medical College of Cincinnati; Gynecologist to St. Mary's Hospital.

The genu-pectoral position as a method of diagnosis and treatment has found more favor in modern gynecology than in obstetrics. Since the accidental discovery by Sims of the influence of gravitation in reducing a dislocated uterus, the postural method has become a well-recognized form of treatment in various diseases of the uterus. Strange to say, however, in obstetrics this particular form of posture—the knee-elbow position—is barely mentioned by modern authors, except by a few in the treatment of retroversion or retroflexion of the gravid uterus, and in prolapse of the cord. The conditions requiring the influence of posture in procuring gravitation in certain directions obtains more powerfully in obstetrics than gynecology, and hence the opportunities for the practical application of this method should be even more obvious. It is due, however, to its use in obstetrics that the knee-elbow position (which we especially consider here) first found its applicability. It was known early in the Christian era,(1) and was recommended and practiced in England and Germany in the eighteenth century (Deventer, 1701; Smellie, 1748; Mowbray, 1724; Henry Bracken, 1737; Ludwig v. Knoer, 1747; George D. Boessel, 1756). A very extensive paper was written on this subject by F. A. Ritgen in 1820.(1) This author gives not less than twelve different indications for the use of this position in obstetrics. It is singular that in spite of the great reputation of Ritgen, German obstetricians since his day have little favored his recommendations. Among Americans, Bard and Shippen are mentioned as having taught and practiced this method.(2) To Thomas, of New York, the honor is due of having rediscovered (we may say) and insisted upon the importance of the gravitatory influence of the knee-elbow position in reducing the prolapsed cord. Quite recently Maxon, of Syracuse, New York, has strongly urged this position for turning, especially in facilitating cephalic version. It may therefore be justly said that as in gynecology, so also in obstetrics America deserves the honor of re-establishing an almost "lost art."

Definition.—The terms "knee-elbow" (genu-cubital) and "knee-chest" (genu-pectoral) position are regarded generally as synonymous. They are not, however, because neither expresses exactly the position as generally understood. In the former the correct or faulty position depends upon the position of the elbows, whether they are carried away from or towards the body; in the latter it is almost impossible to bring the upper part of the body in the kneeling position so low down as to touch a horizontal plane with the chest.

Aveling, in his admirable monograph, "Posture in Women," divides the kneeling posture employed in midwifery into two forms: the knee-head-ascending and the knee-head-descending. The former is believed by many obstetricians to be by far

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[1] According to Winckel, Soranus was acquainted with it; Ali ben Abbas and Serapion recommended it in obese persons.

[1] Die Anzeigen der mechanischen Hülfen bei Entbindungen. Giessen, 1820.

[2] Parvin: American Practitioner, January, 1877.

the best in which a woman can be placed during the last stage of parturition; it includes all the postures which a woman assumes when she kneels with her body more or less erect.

• The knee-head-descending is commonly called the "knee-elbow" or "genu-cubital" posture, but as the knees may be placed low and the elbows high, the term does not necessarily indicate the sloping position of the body here called the knee-head-descending. Aveling also objects to the term "knee-breast" posture for two reasons: first, it does not positively indicate the intended inclination of the body, and, secondly, it is impossible for any person to adopt this position. He says: "Any one who will take the trouble to kneel on the floor and maintain his femora erect will at once find that he cannot touch with his breast the horizontal plane upon which he rests."(¹)

A more precise description is therefore necessary to explain the proper position of the body for the uses to be hereafter described. No better definition can be given it than has been done by Sims: (²) "Place the patient on a table on her knees and bend her body forward till the head is brought down to the plane of the table, where it may rest in the two hands, its weight supported on the left parietal bone, while the elbows are thrown out widely from the side. The knees are to be separated eight or ten inches; the thighs are to be at about right angles with the table. Thus the plane of the table, the axis of the thighs and that of the body would form a right angle, and the body the hypothenuse. The patient must be taught to maintain unflinchingly this position; she must not pitch forward and make the pelvian angle obtuse, nor draw the knees under the body, making it more acute; she must not arch the spine upwards, for this brings into forcible action the abdominal muscles, which should be perfectly relaxed, with the spine rather curved downwards, as we see it in sway-backed animals. With these precautions fully impressed on her, she is to breathe easily and relax the muscles of the abdomen. In consequence of this position quietly maintained for a few moments, the movable abdominal and pelvic viscera necessarily gravitate towards the epigastrium."

It has already been said that the knee-elbow position may be used advantageously as a means of diagnosis and treatment in obstetrics; as a measure of diagnosis its applicability is very limited; as a means of treatment it is more general. It may be resorted to (1) in pregnancy, (2) during labor, either as a posture in natural labor or for certain operations, and (3) after labor, during the process of involution in certain conditions. In gynecology the main object in making a female patient assume this position is twofold: (1) to relieve hyperæmia of the pelvic organs, caused by the superimposed weight of the abdominal viscera, and (2) to correct certain diplacements of the uterus. If we bear in mind that the physiological congestion of the uterus and its vicinity in pregnancy will increase the tendency to hyperæmia, and hence also to displacements of the uterus, we can readily conjecture that in obstetrics as well as in gynecology, in the former even to a higher degree than in the latter, the employment of this method will find numerous indications.

I. PREGNANCY.

(*a*) FOR DIAGNOSTIC PURPOSES.

As a diagnostic measure, examinations in the knee-elbow position are generally not so satisfactory as in the dorsal position. In the latter the patient is less fatigued, abdominal palpation and auscultation are more easily performed, and the cervix uteri more easily reached by the finger on account of its lower position in the vagina. Certain conditions may, however, require an examination in the knee-elbow position, to supplement, if necessary, the knowledge gained by the ordinary examination of the woman on her back. Ritgen recommends it for pelvic exploration, particularly in fleshy persons, stating that "for the accoucheur who wishes to examine the region of the ossa and linea innominata it is very convenient. For investigations, with four fingers or the entire hand, it is especially applicable."(¹) McClintock(²) also recom-

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1 Obstetrical Journal of Great Britain and Ireland, vol. iv (1877), p. 783.

2 Clinical Notes on Uterine Surgery, p. 13.

1 Quoted by Henry F. Campbell in his paper on "Pneumatic Self-Replacement in Dislocation of the Gravid and Non-Gravid Uterus." Gynecological Transactions, vol. i, p. 200.

2 Note to Smellie's "Midwifery," Sydenham Society edition, vol. i, p. 191.

mends it in the diagnosis of pregnancy for *ballottement;* he says: "A better way is to place the patient in the genu-cubital position, resting her folded arms on a stool or cushion. The examiner then applies his fingers over the most prominent part of the uterus and endeavors by a sudden upward movement to displace the fetus and to feel its descent again on the hand. . . The diagnostic value of this test was singularly exemplified in a case recorded by Dr. Gaillard Thomas, of New York, who by its means diagnosed, *per vaginam,* a left tubal pregnancy about the fourth month; and acting upon this diagnosis he successfully opened the cyst from the vagina and removed the embryo and secundines. *So delicate an application of this physical sign is perhaps unequalled up to the present time.*"

In great obesity of the abdominal walls in fleshy persons, palpation of the uterus might be made more easily in the knee-elbow than in the dorsal position, because the weight of the pregnant uterus puts the abdominal walls on the stretch and throws the womb more forward against the palpating hands.

Certain complications, as, for instance, tumors of the ovary, which may otherwise elude detection, may be palpated and isolated from the pregnant uterus in this manner. The distinction between the neoplasm and the pregnant uterus is thus made with greater facility.

(*b*) AS A MEANS OF TREATMENT.

Hyperæmia. — In pregnancy the increased weight of the womb, even in the absence of other (pathological) complications, may give rise to certain symptoms which are all referable to pressure. In addition to the physiological congestion there may be a venous stasis. This stasis may manifest itself in the womb itself, the cellular connective tissue, or other adjacent organs. Œdema of the genitalia and lower limbs, varicosities of the vulva and legs, hemorrhoids, etc., are all the result of some impediment to the return flow of the blood, and demand proper postural treatment. Ordinarily the dorsal position is advised, and properly so; but the genu-pectoral or knee-elbow position is still more rational, as it not only prevents the downward pressure, but also carries the uterus and adnexa away from the pelvis. In the albuminuria of pregnancy due to pressure of the gravid uterus on the ureters this postural treatment is of great benefit, because it carries the womb away from the spinal column.

Vesical irritation from womb pressure is often relieved by the patient assuming this position. The reason is plain: the normally anteverted uterus, which has been exerting a pressure on the fundus of the bladder, is temporarily carried upwards and thus lifted off. It also removes the pressure of the cervix on the neck of the bladder. In advanced pregnancy this symptom sometimes becomes very distressing. Some patients will instinctively assume this position to relieve pain from pressure; others are able to evacuate the bladder only in this or the ordinary kneeling posture, slightly bending forward. Constipation due to mechanical pressure of the womb against the rectum may thus be also relieved. Prolapse of the rectum as well as hemorrhoids, when there is a tendency to these affections, may thus be averted.

All of these complications become aggravated in the more advanced stages of pregnancy, hence this treatment is more indicated towards the end of the gestation period, at least in the second half. But sometimes even early in pregnancy persons suffer great discomfort from pressure. Aveling(¹) says: "In early pregnancy and uterine enlargements it is sometimes highly desirable that the uterus, in consequence of the distressing symptoms which it produces, should be made to ascend into the abdominal cavity. For these cases the knee-elbow position will be found to favor the manipulation of the operator."

Retroversion and Retroflexion of the Gravid Uterus.—In this condition postural treatment is almost a *sine qua non* to correct the backward dislocation, either with or without manual interference, according to the size of the womb and the gravity of the case. This being a pathological occurrence and endangering the continuance of pregnancy, and probably ultimately also the life of the patient, it demands prompt treatment at the hands of the obstetrician. Undoubtedly often nature corrects the displacement without the knowledge of the patient or physician; for as the uterus normally rises out of the pelvis and becomes

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1 "Influence of Posture on Women," Obstetrical Journal of Great Britain and Ireland, vol. i, p. 623.

anteverted, a slightly retroverted or retroflexed uterus will be gradually thrown forward and become straightened out if not held back by adhesions. Sometimes, however, the womb may become accidentally retroverted or retroflexed and held in this position, especially if pregnancy be advanced to the third or fourth month, until replaced by artificial means. It is therefore in these two classes of cases that backward displacement of the gravid womb is more apt to occur: 1. Previous retroflexion of the uterus, the organ being held down by posterior adhesions, but the flexion not acute enough to prevent conception and the continuance of pregnancy. 2. Accidental or acquired backward displacement of the uterus during pregnancy. In the former the dislocation is more apt to be a flexion, in the latter a version. Postural treatment alone is, however, rarely sufficient of itself to correct the backward displacement of the dislocated organ. Sims(¹) and Campbell(²) attach all importance to the influence of pneumatic pressure by the admission of atmospheric air into the opened vagina, an opinion, however, not agreed to by all other authorities. Berry Hart,(³) for instance, says: "I am aware that many eminent gynecologists hold that spontaneous replacement of the retroverted uterus does occur in the genu-pectoral posture when the vagina is opened to admit air. I can say, however, that I have never seen such a result in any case, nor do I believe it possible." He contends that "complete replacement of the retroverted uterus can only be obtained when in addition to the genu-pectoral posture and opening up of the vaginal orifice, pressure on the fundus through the rectum, or distending the rectum with air or water, or bringing down the uterus with a volsella towards the vaginal orifice are employed." Hart's explanation does not, however, invalidate the argument that posture in the knee-elbow position will greatly assist the replacement of the retroverted organ if the displacement be not beyond a certain line in the transverse axis of the pelvis. In fact, the increased weight of the pregnant uterus will facilitate the replacement if the fundus does not fall below this imaginary line. If the woman be placed in the knee-elbow position and the fundus is on the abdominal side of this transverse axis its own weight will tend to throw the fundus upward (*i.e.*, towards the diaphragm) and forward, *provided* the cervix find room to be correspondingly tilted downward and backward. If in a retroversion the fundus rests deeply in the hollow of the sacrum and the cervix is resting on the symphysis, it stands to reason that the fundus will sink still lower towards the perineal side of the pelvis. Or, if in a retroflexion the uterus is bent at the cervix and the fundus is on a lower plane, this longer arm of the uterine axis will by gravitation tend to sink still lower into the sacrum. To correct either displacement two objects must be attained: a *pushing* up of the fundus and a *pulling* down of the cervix. If traction be made on the cervix it tends to straighten out the uterine axis or convert it from a horizontal to a vertical position. The moment the heavy fundus approaches the axis of the body of the patient the uterus falls forward into the proper anteverted position. To summarize, it should be a combination of push and pull (Parvin).(¹) When the uterus has become incarcerated or is held down by inflammatory adhesions, attempts at reposition may prove very difficult or even futile. We should, however, not despair of eventual success if we persist in our efforts. It may take weeks to accomplish this object, but the seemingly most difficult cases may finally prove successful. Lusk(²) says in his own practice he has invariably been successful in correcting a retroflexion of the gravid uterus in the knee-elbow position. Other authors relate similar experiences, although it cannot be denied that sometimes the induction of abortion is the only alternative between a continuance of pregnancy in a displaced uterus and the correction of the difficulty.

Vomiting of Pregnancy.—As this is a symptom of varying conditions of pregnancy, no one treatment will prove of avail in all cases. Pressure of the pelvic organs may provoke it; according to Graily Hewitt a flexion is the most common cause of this reflex symptom. Without subscribing to so extreme a view, it is certain that in some instances vomiting and nausea are

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1 Loc. cit. 2 Loc. cit.

3 "The Clinical Features, Anatomy, and Uses of the Genu-Pectoral Position." Americal Journal of Obstetrics, vol. xiv, p. 822.

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1 "Science and Art of Obstetrics."

2 "The Science and Art of Obstetrics."

caused by some change of position in the uterus. To relieve the hyperæmia or correct the displacement, the genu-pectoral position may be tried if other remedies fail. If a backward displacement is diagnosed *per vaginam*, postural treatment should unhesitatingly be tried. I have also found the knee-elbow position of assistance in emptying the stomach if it contained indigestible or undigested material. If nausea is persistent, relief is only obtained after evacuation of the contents of the stomach. An illustration of the rationale of this treatment is given in the following case:

A young married woman in her third pregnancy endeavored to induce abortion in the second month. In this she was unsuccessful, but nausea and vomiting set in soon after, which became uncontrollable. After various medicinal agents had been tried without avail, she was admitted in March, 1889, to St. Mary's Hospital of this city in a thoroughly emaciated condition, vomiting being incessant. An examination *per vaginam* revealed a pelvic peritonitis and an acutely retroflexed uterus in the third month of pregnancy. Efforts were made at reduction first in Sims' position, but had to be discontinued on account of the great pain caused by pressure on the fundus. The uterus appeared bound down by fresh adhesions posteriorly. The patient was put in the knee-elbow posture and pressure made upon the fundus through the vagina by means of the finger. Not much was gained, and the fornix vagina was dusted with iodoform and a cylindrical cotton tampon placed transversely behind the uterus; after which, the finger remaining against the tampon, the patient was slowly replaced into the latero-prone position and enjoined to retain this position in bed. These attempts at reduction of the womb were cautiously made every day or two, placing the patient each time in the knee-elbow position and inserting a tampon at the end of each manipulation. Owing to the pelvic inflammation and effusion it was not thought advisable to use too much force. Gradually, however, the uterus yielded more and more, until finally at the end of about two weeks it was entirely replaced into its normal position. The vomiting had ceased a few days after the first attempt at reduction. Some obscurity surrounded the question of pregnancy, as the amount of the effusion, the size of the uterus, and the pain on pressure was so great as to prevent much manipulation. One of the gentlemen who assisted me denied the existence of pregnancy. The subsequent history confirmed, however, the original diagnosis. The patient left the institution soon after in good health, but miscarried in June, the fifth month of pregnancy.

In this case the good effect of postural treatment is shown on the vomiting in the first days, even before the uterus was reduced, but only supported. The pelvic effusion complicated the treatment, but the insufflation of iodoform and support of the uterus by the tampon certainly also had a favorable action on the inflammatory process. The patient expressed herself at once relieved of the most distressing symptoms—vomiting and pain.

II. PARTURITION.

Normal Labor.—Among civilized races the knee-elbow position is rarely resorted to by women in ordinary labor; and yet it cannot be denied that if they were left to the instinct of nature alone they would probably assume this position more frequently than they do at the present day. It must be understood, however, that this knee-elbow position instinctively assumed is not the genu-pectoral, for the chest is usually *not* supported, but the patient rests on her knees and elbows alone. Among some of the Asiatic tribes and North American Indians(¹) this posture is adopted by all women in labor. It seems as if the kneeling position was also common in Greece in ancient times, for Lethe is described by Homer as giving birth to Apollo in this position; and even at the present day some of the women in Greece are delivered in this manner. According to Ploss,(²) many English women in Smellie's and and Spence's times were delivered from behind in the knee-elbow position. According to McClintock,(³) the prone posture (knee-elbow) has been employed at no very distant period in parts of Cornwall, the north of Scotland, and in remote parts of Ireland. Denman was of opinion that resting on the hands and knees is the position instinctively sought for, and per-

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1 Ploss and Engelmann.

2 "Lage und Stellung bei der Geburt."

3 Loc. cit., vol. i, p. 204,

haps most natural in the time of labor. According to Mauriceau and Baudelocque some of the French women were delivered in this manner. McClintock, commenting upon these historical notes, says: "In the course of labor I have often found it serviceable to put the patient into the genu-cubital position for a little time. The change of posture was a relief to her; and where the axis of the uterus seemed to lie too near the spine (as in some primiparæ) its rectification was favored by the position in question." Indeed, the frequency with which women who thought themselves unobserved exchanged the conventional dorsal or lateral position for the squatting or kneeling posture has induced some medical ethnologists (Engelmann, Henning, Campbell) to make a strong plea for allowing parturient women greater liberty in assuming the most comfortable position. The kneeling posture often renders the use of the forceps unnecessary, and, according to Campbell, protects the perineum most efficiently. Henning relates an instance(¹) where a parturient woman in Leipzig, who had given birth to seven children previously with difficulty, in her eighth labor, being without assistance, knelt down upon the ground and was delivered of a large-headed child, breech presentation, in a few minutes. The kneeling posture is, however, a useful expedient only in the second or expulsive stage of labor. In the first stage pressure of the presenting part of the child upon the cervix is desirable for the purpose of inciting labor pains. Hence the woman is to assume the erect or semi-erect position. If the head be carried away from the cervix, as in the knee-elbow or, still more so, in the so-called knee-chest position (the face resting on a horizontal plane), labor pains will be retarded or momentarily suspended. However, as this retardation or suspension may be desirable in certain instances, advantage may occasionally be taken of this occurrence. If, for instance, the pains are excessive whilst the os is hard and unyielding, a woman may be put temporarily in this position; or, if in a malposition preparations are being made for artificial delivery or additional aid is being summoned, the pains may be thus temporarily suspended. If, again, for some reason or another, it is desirable to maintain the bag of waters as long as possible and to prevent its too early rupture, the knee-elbow position is a valuable expedient. It might also be tried early in labor in those cases in which women habitually have had malpresentations. Here the object is to assist the rotation of the body of the child until it enters the brim of the pelvis by one of its polar extremities.

In all these instances the desired object may be attained by gravity alone. But a still more urgent indication for the adoption of this position is in those instances where it facilitates certain operative measures. These shall be next considered.

Forceps.—Ritgen(¹) says: "With pendulous abdomen we can very early apply the forceps from behind, even when the head rests upon the ossa innominata and does not properly enter the pelvis. The last movements in passing the perineum can very well be made in the same position." McClintock states that in his early professional life he knew an old accoucheur who always put the patient in the knee-elbow position when using the forceps. "He was a good practitioner, and acquired his experience in a remote part of the north of Ireland, where it was customary among the peasantry to deliver *every woman in this position.*"(²) In preternatural and instrumental deliveries, Fielding Ould also directed the patient to be put on the hands and knees.

With all this we do not think, however, that in ordinary forceps deliveries the knee-elbow position possesses any advantage over the dorsal or lateral position. It is true that the perineum will be less likely to become lacerated than in the dorsal position, but if this be feared the lateral position can be assumed, A further disadvantage of the knee-elbow position is the inability to administer anæsthetics properly, and these should always be given in difficult forceps cases, both to prevent pain and secure relaxation of the soft parts. Furthermore, as the convexity of the blades of the forceps corresponds to the concavity of the sacrum, it is always more convenient to introduce them from above downwards, that is, when the pelvis is in the horizontal position, the patient lying on her back. These objections, therefore, counterbalance any advantage to be de-

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(1) Note to translation of Engelmann's work on "Labor among Primitive Peoples."

(1) Campbell, loc. cit. (2) Loc. cit.

rived from the knee-elbow position. One possible exception to this, however, might be made in those cases where the occiput is posterior and the blades are introduced in such a way that the cephalic curve passes over the ears of the child, the tips resting on the occiput. This is done by applying the forceps reversed, that is, with the convexity of the pelvic curve toward the pubes instead of in the hollow of the sacrum as usual. This method, suggested by Dr. Wm. L. Richardson, of Boston,(¹) for the rectification of occipito-posterior positions, might be more easily carried out with the patient in the knee-elbow position, as it gives more room to the handles in the introduction of the blades from above downwards. In addition to this, the force of gravity might also favor anterior rotation of the occiput.

Version.—When we contemplate the difficulties often surrounding this operation, the knee-elbow position is of great advantage, and it is to be regretted that the profession is not better informed as to its advantages. Version is resorted to either to correct a malposition of the fetal parts or to terminate labor speedily on account of hemorrhage or some other urgent cause. In both instances one presenting part of the child must be changed for another. Now if we bear in mind that the presenting part is forced down upon the inlet of the pelvis, if not already in the cavity, by the contractions of the womb, we can readily understand that the force of gravity will render this operation still more difficult by adding the weight pressure to the contractions. The knee-elbow position will relieve both: (1) By gravity acting in the contrary direction (towards the diaphragm) the child will be carried away from the pelvis, giving more room for operative manipulations with the hand. (2) Labor pains are temporarily suspended, and hence contractions of the uterus prevented. To this may be added a third very important reason, already previously mentioned, that the knee-elbow position in itself tends to rectify a malposition. The obstetricians of a century ago were better acquainted with these advantages than the authorities of to-day. Smellie succeeded in bringing down the feet in this position when he found it impossible to do so in any other way. Ritgen always turned with the patient in the knee-elbow position. Of more recent authors scarcely any speak of the advantages of this posture in version; Fehling (the writer on Operative Obstetrics in the recent "Handbuch d. Geburtshülfe," edited by Müller), however, claims for it an advantage in performing version when the fetus is in a dorso-posterior position.

The chief renewed impetus to the knee-elbow position in transverse positions was given by R. F. Maxson,(¹) of Syracuse, N.Y., who showed that by the help of this position *cephalic* version may be performed. Dr. Maxson accidentally made the discovery, whilst endeavoring to replace a prolapsed funis in a transverse presentation, that the cephalic extremity, when lying nearer the os than the feet, could be made to enter the cervix after the shoulder had been carried away from it by gravitation. After he had succeeded in replacing the cord he was surprised to find that he had secured another object: the transverse had been converted into a cephalic presentation. Subsequently he applied the knowledge thus gained to a case of transverse presentation and was equally successful. Since then other authors have reported similar cases. Linton,(²) in a right shoulder anterior position by this method caused the shoulder to recede and the head present. In a second case of left shoulder presentation complicated with placenta prævia, he safely delivered the woman by podalic version after having placed her in the knee-elbow position. Sometimes, indeed, although cephalic version was aimed at, the head failed to enter the pelvis, and the podalic extremity was substituted by nature, with an equally successful termination. Thus, Parvin(³) reports a case of left shoulder presentation in which posture gradually converted this presentation into that of the breech. Hildreth,(⁴) of Zanesville, reports a remarkable case of shoulder presentation, which occurred four times in the same patient. In the first two labors the arm had to be amputated (the child being dead) before version could be performed; in the last two instances the woman was put each

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1 Medical Communications of the Boston Medical Society, vol. xiii, No. 4, 1885, p. 412.

1 American Practitioner, 1877.

2 Ibid.

3 Ibid.

4 American Journal of the Medical Sciences, April, 1866.

time in the genu-pectoral position and podalic version successfully performed with the child living. Hildreth claims for this position the following advantages: (1) Gravity relieves impaction; (2) it relieves the bearing down by the voluntary muscles (suspends abdominal pressure); (3) it takes off the weight of the abdominal viscera; (4) it retains the liquor amnii; (5) it relaxes the abdominal muscles and uterus. Hildreth's paper antedates Maxson's by ten years, but nevertheless to the latter is due the credit of having shown that transverse presentations may be converted into cephalic presentations by the influence of posture alone. When this does not succeed it nevertheless facilitates operative manipulations. Cutts, ([1]) of Washington has collected seventeen cases by different authors, including those just mentioned, in which version was facilitated by this means. The correcting influence of the knee-elbow position is well illustrated in the following case of my own:

Mrs. T. had been delivered three times with some difficulty, owing to a moderately contracted pelvis. In her fourth labor, which was very much protracted, I was summoned by the midwife in attendance. I found the os dilated and the bag of waters broken, but the head was above the brim of the pelvis and deflected to one side, the left cheek presenting. Labor pains were very active, but each pain seemed to increase the difficulty. Anticipating trouble I sent for assistance, but meanwhile placed the patient in the knee-elbow position. This had the desired effect of suspending the downward pressure. The patient was then gradually again placed in the dorsal position, when it was found that the face had entered the brim with the chin anterior. The forceps was applied and the woman safely delivered of a living child.

Somebody has suggested the genu-pectoral position for the purpose of converting face into vertex presentations. Whether this has been done successfully I do not know, at any rate it did not take place in the case reported, nor was this object sought.

One objection may be urged against the knee-elbow posture in operative obstetrics, viz.: that an anæsthetic cannot be given. It is true it cannot be given with the same facility as in the dorsal position, but, if need be, it may be administered to the patient while in the lateral semi-prone position, and when anæsthesia is complete she may be lifted by assistants into the desired position. As a rule, however, anæsthesia is not necessary because the knee-elbow position also relieves the pain otherwise caused by downward pressure, and the patient will bear manipulations better in this than in any other position. One precaution must, however, be added. Owing to the thinning of the cervix caused by impaction in transverse presentations, great care must be exercised lest the dragging of the body upon the cervix increase the thinning, already dangerous. The fundus must therefore be well supported externally by the hands of an assistant or some solid object should be placed under the abdomen upon the table or bed.

Dorsal or Nuchal Displacement of the Arms.—This complication of version or pelvic presentation, due to untimely or improper efforts at extraction, may give a great deal of trouble when attempts at replacement are made with the patient in the dorsal position. The weight of the body, as far as it is born, drags the child downwards, whilst the uterine force from above drives the head more into the cavity of the pelvis, increasing the impaction. The evolution of the arms often, therefore, becomes a Sysiphus task. Both of these difficulties in the way of correcting this displacement may be met by putting the woman in the knee-elbow position. The body of the child is lifted up so that it points vertically to the outlet of the pelvis, the abdomen or back of the child meanwhile resting upon the arm of the operator. Its weight will thereby cause the head to fall further within the pelvic cavity; the body may be consequently pushed up (down) more easily and more room gained for the introduction of the operator's hand, just as in version. Should Barnes' method of rotating the child into the original position be employed, the knee-elbow position will permit its accomplishment with greater facility. An important and necessary help to all these manœuvres is the suspension of the uterine force, the securance of which should be the primary object in all cases where the obstacles to delivery are increased by the downward pressure of the contracting uterus.

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[1] American Journal of Obstetrics, 1887.

Prolapse of the Cord.—Of all the indications for postural treatment in obstetrics, that for prolapse of the cord is most universally recognized. Almost all of the recent obstetric writers at least mention its efficacy in certain cases, either with or without manual assistance. The antiquity of this expedient is probably greater than for any other purpose; all of the authors cited in the beginning of this paper mention it. It is singular, however, that Ritgen—of whom Campbell(1) says: "There is scarcely any circumstance or condition of the patient, but principally those of parturition, in which this thoughtful and circumspect teacher does not give us valuable instructions, by which we may advantageously bring into requisition the powerful instrumentality of the *womb's inverted weight*, mostly in the gravid condition, for the removal of embarrassments so often incident to downward pressure of the pelvic viscera"—I say, it is singular that he should forget, in his enumeration of the various indications, prolapse of the cord; but in his "Lehrbuch der Geburtshülfe," published ten years later, he says: "When the funis presents, the midwife should instantly send for the accoucheur; meanwhile she should herself place the woman, if strong enough, upon her knees and elbows, and attempt the replacement of the cord; if the woman is too weak to admit of this, she should be placed upon her side with elevated pelvis."(2) This latter position is in reality the latero-prone or Sims' position, which shows that this author recognized this position as the best substitute for the knee elbow position. However, already Deventer stated "if the woman be too weak for the knee-elbow position she should be placed upon the side with one limb drawn up under the body." Verily "there is nothing new under the sun." K. F. J. Birnbaum,(3) a pupil of Ritgen, who wrote upon this subject in 1867, adopts the suggestion of his teacher, but limits the efficacy of postural treatment to that stage of prolapse of the cord when the loop is still high in the cervical canal and the cervix scarcely admits the examining finger; when it has once passed through the os uteri it would be vain to expect any good from this position. He remembers no case where manual aid was not also necessary in addition to the knee-elbow or side position to replace the cord or extract the child. This seems also to have been the experience of most other accoucheurs, who accept the same limitation as to the postural treatment. Of recent writers, Gaillard Thomas has again brought forward this method and induced obstetricians to give it a trial before resorting to forced dilivery. Where there is no necessity for immediate action in delivery and prolapse of the cord is the only complication, postural treatment may be tried alone; but it stands to reason that where there are other complications, as a contracted pelvis, a transverse presentation, or danger arises to the life of the child from other causes, no time should be lost in making vain attempts at reduction of the cord, but delivery effected as rapidly as possible. The knee-chest posture, moreover, is of value as an auxiliary, even in those cases complicating prolapse of the cord, for the reasons already given, as in version. Cases have been reported where such complications were thus met successfully both to mother and child. Dr. Hadden, of New York, reported a case in the *New York Medical Record*, 1866, where the cord and arm prolapsed; the patient was placed on elbows and knees, the funis reduced, and then a successful version accomplished without much difficulty.

Locked Twins.—This fortunately rare but dangerous occurrence deserves the trial of any simple expedient before resorting to the dire operation of embryotomy. The unlocking of the twins is frequently a matter of great difficulty, and necessitates an accurate knowledge of the complicated position of the presenting parts. Opinions differ as to the proper method of extracting one or other of the twins in impaction, but all are agreed that we should endeavor to separate the presenting part of one child from that of the other before making traction on either child. This can be often successfully done. Pleissman, quoted by Cazeaux and Parvin,(1) succeeded by raising the lower extremities and hips of the patient high above the shoulders, with the patient on her back. The principle was the same as that sought in the knee-elbow position, gravitation downward towards the diaphragm, but the execution is not so

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1 Loc. cit., p. 199. 2 Quoted by Lusk.

3 American Journal of the Medical Sciences, April, 1868.

1 Science and Art of Obstetrics, p. 463.

simple and convenient as in the latter. Galbraith,(¹) of Seymour, Indiana, thus succeeded in unlocking a pair of twins, when it was impossible to push the head of the second child away when the woman was in the dorsal position. One of the children was already born, except the head, upon his arrival, but the life of the first child was extinct. The second child was delivered alive by the forceps, after the heads had been unlocked with ease with the woman in the knee-elbow position. Dr. Galbraith claims that up to the time of the publication of his case obstetric literature contained no record of the knee-elbow position having been employed to dislodge locked twins. The success in his case and simplicity of the method certainly justify early resort to it when meeting with this anomaly. It is especially of value as it in no way interferes with other manipulations, should it not prove at once successful; on the contrary, it facilitates further operative measures, as turning or the application of the forceps.

Inversion of the Womb.—In the ordinary dorsal position the reduction of the inverted womb is rendered more difficult by the weight of the organ itself. In the knee-elbow posture the weight pressure is in the proper direction, that is, into the pelvic cavity. If then the womb has been lifted up and an indentation made into its most dependent position, the fundus and the cervix is being dilated, the weight of the organ will assist the artificial pressure made by the operator in re-inverting the womb. Hence the knee-elbow posture will facilitate this operation, especially when reduction has already begun. It should be maintained also for some time after reduction has been completed for the purpose of preventing a repetition of the accident, which is apt to recur owing to the relaxed condition of the uterine supports.

The same holds good for prolapse of the womb accompanying delivery.

III. PUERPERAL PERIOD.

During the stage of involution of the female sexual organs the indication for any other posture than the dorsal or lateral will be rare. Rest is the main object to prevent any arrest in nature's process of restoring the parts involved in the act of parturition to their normal non-pregnant condition.

The genu-pectoral position, as it would rather retard than hasten this process of involution, will therefore be rarely called for. However, there may be some instances where a judicious and occasional use of this posture will be indicated. Where, for instance, there has been retroversion or retro-flexion of the womb prior to conception or labor, either as a constitutional fault or the result of previous subinvolution. In those cases in which there is a tendency to prolapse it may also be resorted to. Finally, in inversion of the uterus which has been recently reduced, the knee-elbow posture will be an additional safeguard against a recurrence of this accident, as also against subsequent prolapse of the uterus.

In conclusion, it may be stated that in the foregoing pages an endeavor has been to point out some of the indications for the use of the knee-chest position in obstetrics. It is plain that other complications, as hernia of the bowel, prolapse of the uterus, etc., may all be treated by the same method, whether in the pregnant or non-pregnant condition. The only objection that can be urged against it is that the patient cannot maintain this position for a long time. In the majority of instances this is not necessary, and if success should not crown the first effort, resort may be had to it repeatedly without any detriment. That anæsthetics cannot be easily administered in this position is no valid objection, for this is not necessary except in severe operations, and as pain is often relieved by the position itself, the main indication for anæsthesia is removed. It should, however, be our endeavor always to retain whatever may be gained, if the gain be ever so little, by carefully posturing the patient in the interval between the attempts at reduction or correction. Since the latero-prone position is the next best substitute, the patient should be carefully turned over to her side and her knees gradually turned up towards the abdomen, and she should be told to remain in this position. On no account should the dorsal position be resumed until the object for which the prone posture was adopted has been attained, or when, for operative purposes, it becomes necessary to complete delivery in this position.

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1 American Practitioner, 1880, and American Journal of Obstetrics, 1882.

SOME POINTS IN THE DIAGNOSIS OF PYOSALPINX.

Abstract of a Paper presented to the American Association of Obstetricians and Gynecologists,

By RUFUS B. HALL, M.D.,
Cincinnati.

This disease, said the author, entails so much suffering upon the individual afflicted with it, and by reason of the clinical interest and consequences, equals if not surpasses in importance any other affliction which the gynecologist is called upon to treat. He believes that the importance of the part played in the production of suffering in the victims afflicted with the disease has not received the attention from the profession at large that the subject justifies, especially when it is remembered that the general practitioner first sees and treats the great majority of these cases for a longer or shorter time before they are seen by the operator. The subject of diagnosis, which is avowedly difficult to the specialist in his own department, is obviously more difficult to the general practitioner; and if we hope or expect to afford relief to a great number of suffering women all over our land, the subject of diagnosis must be more fully understood by the profession at large than it is at the present time. It is now conceded by all members of the profession that diseases of the Fallopian tubes are a prolific cause of serious functional disturbance, and that they not infrequently cause death, and that the removal of the diseased structures is justifiable in properly selected cases. But what we need most is to be able to make the selection, and decide when palliative measures may be persevered in, and when operative interference becomes necessary. The author believes that pyosalpinx so often follows the other inflammatory diseases of the uterine appendages that he is compelled to refer to them frequently in discussing the subject, and says that salpingitis so often succeeds endometritis that the symptoms are merged with those of the primary disease, or are so completely masked by them that it is not suspected until pelvic peritonitis occurs.

Although septic infection plays a most important part in the etiology of inflammatory diseases of the uterine appendages, yet it is by no means possible to trace all cases to this origin; and, indeed, some cases are so obscure that we can trace their origin to no distinct or reasonable cause.

Owing to the unfavorable condition always present for the healing of inflammatory processes, acute exacerbations occur from trivial causes; the repeated attacks finally cause complete closure of the ends of the tubes. In consequence of the closure of the tubes, the normal secretions of the tube soon become pathological, and by the repeated attacks of inflammation may, and not infrequently do, become changed into pus, producing the typical pyosalpinx. While he is convinced that pyosalpinx not infrequently follows puerperal diseases and gonorhœal infection, he does not believe that they are the only ailments which are likely to be followed by this complication, or that they are the most frequent cause of the disease. He has operated upon a number of cases where no cause could be assigned or traced other than repeated attacks of inflammation following a cold contracted at the menstrual period. He believes that the disease may be contracted in two different ways: (1) by a chronic process causing dropsy of the tube, which, by repeated attacks of inflammation, is changed to pus; (2) it may be rapidly produced by an acute process following gonorrhœa and puerperal diseases.

In no class of diseases is the history of such vast importance as in the one under consideration, a history of almost constant suffering for some years standing directed especially to a certain locality, perhaps originating in an attack of pelvic or abdominal inflammation, either connected or not with parturition. To this we may add sterility and we have a history which will help us very much in forming a correct diagnosis. While physical signs are important, they are not more so than the history itself.

By vaginal examination we can usually recognize diseased appendages. If we have a pyosalpinx we should be able to recognize a diseased mass behind or upon one or both sides of the uterus, and in the large majority of cases this mass is exceedingly sensitive to pressure, and cannot be displaced or pushed upwards with the examining finger. In most cases it is difficult, and in many it is impossible, to make out the exact diseased condition of the appendages by physical examination, except in cases of pyosalpinx. But we are usually able to say that disease does or does not exist, which, taken with the history of the case, we will not have much difficulty in deciding whether or not the case is serious enough to justify us in recommending an operation. In pyosalpinx we usually have an irregular ovoid tumor, showing swelling and constrictions not found in any other pelvic tumor except tubal collections. This tumor is usually of small size, and we have the sensation of *indistinct* fluctuation imparted to the finger on vaginal examination. The tumor may be in the retro-uterine space, extending towards the pelvic brim on one side, with a second tumor on the other side higher up; or there may be distinctly felt a narrow furrow, which is caused by a portion of the uterine end of the tube remaining undistended by pus, while the distal end is enlarged to form the tumor. This furrow is not so plainly felt in those cases where there is a periodical discharge of the pus through the tube into the uterine cavity; this is a very valuable sign in making a diagnosis. In fact, if we have all the other symptoms of pyosalpinx, with a history to confirm them, and can feel the enlarged tube before a discharge of pus from the uterus, and immediately after the discharge has occurred we find that the tube has collapsed, then we have positive proof of the existence of pyosalpinx.

The author believes that the diagnosis of pyosalpinx is not so difficult as is generally believed, if the *previous history* of the case is carefully inquired into and given due consideration and weight. In most cases the uterus is more or less fixed and displaced, and there has been a history of more or less pain during defecation, particularly marked in those cases where the tumor occupied the retro-uterine space. Most of the cases of pyosalpinx coming under his observation gave a history of dyspareunia. If pain has been a prominent symptom extending over a long period of time, and it is evident that the tube contains pus, the case must be looked upon as serious and demanding prompt relief. The same surgical law should govern us in the management of these cases as in every other surgical disease; "when pus is present let it out," and the way to let it out is to remove the offending tube. Delays under these circumstances are dangerous. The bursting of the tube containing pus may cause fatal peritonitis, an accident that he has seen follow in a number of these cases when a proposed operation had been refused.

CREOLIN AS AN ANTISEPTIC.—Dr. Jessner, in an article in the *Deutsch. Med. Zeitung*, No 25, 1889, comes to the conclusion that creolin answers all the requirements of an antiseptic as well as anything at present known. It is easily soluble, or makes up into an exceedingly fine and agreeable emulsion, it is not volatile, not poisonous, not corrosive (as regards instruments), does not irritate the mucous membrane or the skin in the concentration required to be used, does not irritate wounds or retard healing, finally it is cheap as it does not cost, as used, more than one-fourth as much as carbolic acid. As compared with sublimate and carbolic, it is a harmless medicine, for large doses have been taken without any injurious consequences. It has special advantages in midwifery, as it does not irritate the vaginal mucous membrane like carbolic and sublimate, for after the use of creolin the membrane becomes smooth and soft. The objectionable feature is its uncertain composition, on which account it is best to limit oneself to the manufacture of one firm. Pearson's is one that may be relied on. Moreover, the emulsion with water is not transparent, so that if instruments are placed in it, there is some difficulty in fishing them out if they are small. The smell is rather agreeable than otherwise, distinctly agreeable as compared with that of carbolic acid, or iodoform.

In a case of sweaty feet, Neuhaus ordered a daily sponging with a 2 per cent. emulsion of creolin. For the first ten days the stockings were changed daily. In suppurative vesical catarrh, injection with a 0.5 per cent. emulsion produced strikingly good results. It has not proved specially useful in gonorrhœa either in the male or the female.—*Med. Press and Circular.*

A SENSIBLE MEASURE.—The medical authorities of the Russian Ministry of War have decided to establish ambulatory laboratories in connection with each army corps, in order that a strict investigation may be made into the quality of the food supplied by the commissariat.

CONTAGIOUSNESS OF TUBERCULOSIS.

A Paper read before the Mississippi Valley Medical Association, at Evansville, Ind., September 10, 1889,

By WILLIAM PORTER, M.D.,
St. Louis, Mo.,
Chairman of a Committee appointed to report to the Mississippi Valley Medical Association.

Gentlemen:—A year ago, when I was appointed a member of the Committee to report upon the "Contagiousness of Tuberculosis," I fully expected to be able to present to you a condensation of all the writings upon this subject to date.

Those of you who have noted the current medical literature for the last twelve months will agree that such a purpose could not be now carried out in the time to which our papers are wisely limited.

Moreover, I believe that a free discussion of this subject will profit more than the presenting of even the most exhaustive report; therefore I will not embarrass the former by attempting the latter.

The choice of the term "contagious" is not a happy one, and yet it has a conventional meaning well understood. I shall here use it as meaning transmissibility. The word "portagious" suggests a thought which should always be kept in mind in our care of phthisical cases, which is that tuberculosis is a disease which can be carried; that the specific elements are portable. This, if we were to hold to the exact use of scientific terms, is more accurately descriptive of that feature of tuberculosis under discussion than is the word contagious. Let us to-day, however, employ these terms as expressing the same idea, and thus avoid confusion and misunderstanding.

The careful reader of to-day cannot but notice the almost entire unanimity of opinion as to the possibility of the contagiousness of tubercular disease, and it is not so much to argue this proposition as to speak of the manner of transmission, that I will claim your attention.

In all experiments made to determine the transmissibility of tubercle, it is well to accept the presence of the "tubercle bacillus" as a definite proof of the existence of tubercle. As I have elsewhere said, I am not fully convinced that it is always the cause, or, as many able writers say, the only cause, but even this may sometimes be demonstrated. At present, and I think this will suffice for our purpose to-day, I believe that if the bacillus is not the cause of tuberculosis, it is at least the result.

The causative relation of the bacillus to tuberculosis is not, however, our theme, and lest we fall into profitless discussion by the wayside, permit me to return to the subject proper—the question of contagion.

At the outset we are met with the question, Can tuberculosis be directly inherited? Or, to state it more plainly, can a new born child have in its tissues bacilli transmitted directly from the father or mother?

We all will admit that a child may inherit a peculiar conformation of chest or a constitutional predisposition which may favor in after years the development of conditions favorable to tubercular invasion, but whether the fetus may be infected through the ovum or spermatozoa is doubtful, though such infection may probably be accomplished through the placental circulation.

Johne claims to have proved placental infection to exist in the cow; and Baumgarten, as well as some others, affirm that a child may be born with bacilli tuberculosis in its tissues, which may remain latent for years, or even during the lifetime. Landouzy and Martin have caused tuberculosis by inoculating animals with the placenta of tuberculous patients.

There is considerable evidence, therefore, to show that tubercle may be directly inherited, from the mother but never from the father. And the great probability is, that instances of direct inheritance of tubercle are very rare indeed.

One such instance, however, was in my own practice during the past year. A lady patient far advanced in pulmonary tuberculosis gave birth to a child, which died in seven months with well-defined tubercular disease.

Leaving the solution of the problem of direct inheritance of tubercle to the future, let me offer two propositions, which, I believe, are susceptible of demonstration, and if so, are of the greatest practical value in their relation to human life.

First.—The products of tubercular disease may be carried from a diseased human subject to one apparently healthy, in whom as the result of such transmission, all of the well-known processes of tuberculosis may follow. In such cases the respiratory tract is generally primarily affected.

Second.—Through the media of meat and milk, tuberculosis may be transmitted from diseased animals to man. In these cases the alimentary tract is first invaded.

Other methods of transmission are recognized by leading investigators, but these two, being the most important, will fully occupy our time.

The proposition that tubercular products from a diseased individual may be engrafted upon and infect a non-tuberculous subject through the respiratory tract, is not only of the greatest interest, but of first importance.

I need not refer to many of the numerous experiments that have been made upon animals to determine the possibility of acquiring tuberculosis through inhalation of air loaded with particles of diseased matter. The researches of Villemin and Chauveau twenty years ago were demonstrations of the fact that tubercle could be conveyed by inoculation. The objection made by Sanderson and Fox, that tubercular conditions could be produced by inoculation with non-tubercular material, has, I think, been well answered by Martin, of Paris, who, from numerous experiments, concludes that after inoculation with tubercular matter general tuberculosis may be produced, and the virus acquires increased potency when inoculations are made in series of animals of the same species. On the other hand, the inoculation of non-tuberculous matter may produce tubercles, which, however, do not when inoculated give rise to general tuberculosis; and this virus, after several terms of the series, seems to lose the power of causing even a characteristic local inflammation.

If we accept as true the statement that tuberculosis may be conveyed by inoculation, we are prepared to receive the further statement that it may be transmitted by the inhalation of the products of the disease. There is ground for the belief that many of the instances of acute infectious diseases which have their gravest manifestations in the air passages are cases of inoculation; in diphtheria, for instance, where the mucous membrane, denuded of its epithelium, becomes a suitable place for the reception and propagation of the specific germ, or in erysipelas of the upper air passages, where probably a similar phenomenon takes place, and possibly in scarlet fever, and, as some European writers think, in cases of specific pneumonia.

What is the evidence to warrant us in concluding that tuberculosis may be contracted in this way? First the experiments upon animals by Tappeiner in 1883, who found seventeen tuberculous animals out of eighteen that had been made to inhale tuberculous sputa. Then the results of Koch's trials, who found within twenty-eight days tubercles in the lungs of guinea-pigs that had been made to inhale material from phthisical cavities.

The experiments conducted by Cadeac and Mullet showed that while the expired air from tubercular subjects gave negative results, the inhalation of air which contained particles of dried sputa from the same patients produced tubercle in two out of twelve of the guinea-pigs employed.

Some experiments of my own ("Portagiousness of Phthisis," *Journal of the American Medical Association*, March 1, 1888), which need not be given in detail, showed that where tuberculosis was produced in a guinea-pig by inoculation, it was possible to infect a previously healthy animal by causing it to inhale the air from a closed box in which the diseased one was confined.

When we come to a practical study of tuberculosis in the human subject, the evidence of its transmissibility is, I think conclusive. I need not here detain you by citing individual cases in proof of this assertion, for probably each of us will remember instances where, if there was not actual demonstration of the contagion of tuberculosis, there was at least circumstantial evidence strong enough to deeply impress us.

Aggregated investigations are always more valuable than isolated instances. We find that the Collective Investigation Committee of London received replies to inquiries from 261 physicians in active family practice, affirming the proposition that phthisis may be communicated from the sick to the well. In these answers many cases were related which seemed to leave little room for doubt.

In this country the pathologists of the New York Board of Health have even gone so far as to distribute published rules for the prevention of consumption, based upon the knowledge of its contagious nature.

At a meeting of the Paris Academy of Medicine, M. Villemin read a report of the Special Committee appointed by the Congress for the study of tuberculosis last year, which it was proposed to publish, with the object of instructing the laity as to the nature of the disease and the best means of avoiding contagion. The report calls attention to the fact that pulmonary phthisis is not the only form in which tuberculosis manifests itself, but that many cases of pleurisy, peritonitis, meningitis, and bone and joint diseases are often tuberculous. The report insists upon the contagiousness of the disease, and refers to the various ways in which the bacillus may gain entrance into the body. Since the sputa of phthisical patients usually contains the bacilli in large numbers, special care should be paid to the immediate destruction of all expectorated matter.

In a paper by Dr. J. E. Squire before a recent meeting of the London Epidemiological Society, the statement was boldly made that the discovery of the bacillus tuberculosus allows us to place phthisis in close relation to the class of infectious diseases toward the control of which preventive medicine has already done so much.

Dr. Cornet, in an excellent paper read before the Berlin Medical Society, only voiced the opinion of many other writers when he said the chief danger of contracting phthisis by contagion lies in the dried sputum, which is often turned into respirable dust.

Dr. Lawrence Flick, in a paper read before the Pennsylvania Medical Society last year, says "contagious diseases are dependent upon a disease germ, and can not be contracted except through the medium of that disease germ. Every case is dependent upon some other case, and no case can spring up of itself." He then endeavors to show by a careful topographical study of phthisis in the Fifth Ward of the city of Philadelphia for a period of twenty-five years, that consumption observes this law. Few physicians are ready to accept such advanced views as these, and yet a careful study of Dr. Flick's essay will show good grounds for his assumption.

Objectors to the doctrine of the contagion of phthisis often quote the statistics of the Brompton Consumptive Hospital, which show the fact that the medical attendants and nurses at this famous institution have been singularly free from tuberculosis. Instead of arguments against the probability of contagion, are not these facts, of which you are all aware, evidences of the value of prevention? Where could we find better hygienic conditions than in such a hospital, and it is to just such conditions that the advocates of contagion look for relief. If the fact that the resident physicians and nurses at the Brompton Hospital seldom become victims of tuberculosis is a proof of the non-contagiousness of the disease, then by the same process of reasoning can we prove that diphtheria, erysipelas, and even cholera are not contagious.

A most interesting fact in keeping with the idea of the transmissibility of phthisis is that localities once famous for freedom from tubercular disease may in time acquire a doubtful reputation as health resorts for phthisical patients.

Dr. Benjamin Rush wrote that consumption was unknown among the North American Indians in the early history of the country, and very infrequent among the early settlers of New England. A hundred years ago the climate of New York was thought to be curative in cases which had acquired phthisis in the Old World. Afterward the level prairies of Illinois and since then the mountains of Colorado and the salubrious atmosphere of California have been the Eldorados of the victim of tuberculosis.

That there is much in the curative influence of climate I firmly believe, but the point I wish here to make, in accord with the idea that tubercle is transmissible, is, that a place or a people, once free from the ravages of tuberculosis, may, by being brought into association with tuberculosis and by ignoring sanitary precautions, acquire conditions needful for the spread of the disease.

I wish to emphasize the idea that, when a certain locality becomes famous as a resort for consumptives, the strictest care should be taken by those in authority to enforce all that is now known of sanitary and hygienic laws to prevent possible transmission of the products of the disease. Who has not seen muco-pus, left by the victim of tuberculosis, slowly drying on the grass or gravel in front of the summer hotel, needing only time and a gentle breeze to be wafted in broken doses, possibly even into the sleeping chamber of the unconscious and the unguarded. We vent our indignation upon the unlucky wight who drops the orange rind or banana peeling upon the sidewalk, but fail to notice him who, himself the victim of the dread disease, unconsciously or ignorantly places a greater danger in his neighbor's pathway.

The statement has been made by Flick and others that patients with phthisis have greater immunity from other contagious diseases. Dr. Welch says that, having seen upward of 5000 cases of small-pox at the Philadelphia Municipal Hospital, he does not remember one who had well-marked phthisis. Dr. Longstreth, Pathologist to the Pennsylvania Hospital, in twenty years has never found consumption in an autopsy for typhoid fever.

Thus it appears that the study of tuberculosis as a contagious disease is each year presenting new and interesting conclusions, and certainly we have reason to hope that the line of investigation so largely directed by Koch's discovery may ere long bring about results which will be of greater practical advantage than any with which we are now familiar.

Second.—Having gone somewhat hurriedly over the grounds upon which are founded the theory of the transmission of tuberculosis from man to man, let us see what reason there is to believe that it can be carried from animals to man.

You are all familiar with the unanimous conclusions of the Congress on Tuberculosis held last year at Paris, which was in support of the idea that tuberculosis is contagious and that there is positive danger to the human race from the consumption of the milk and flesh of tuberculous animals. It was proven by numerous experiments that animals fed upon diseased meat were exceedingly liable to become tubercular, and then it was demonstrated by Carmil, who had made a special study of the subject, that the tubercular bacillus as found in such animals may penetrate the unbroken mucous membrane of the respiratory and intestinal tract.

M. Moule, and also M. Cagny, had observed that domestic fowls were often the subjects of tuberculosis, the disease being found first in the abdominal organs. This I believe to be a most timely warning against a danger next to that of bovine infection. Some of you may have seen the barnyard fowl, destined for early enrollment on the ménu card, picking over the débris from tuberculous patients who have been attracted by the well-known reputation of the place for good water, pure air, and the best of food. It is not pleasant to think of such things, but unless we think of them we cannot remedy them.

A learned paper by an honored member of this Association, Dr. J. A. Ouchterlony, was read before the Kentucky State Medical Society, in which he expressed his conviction that there could be no security from tuberculosis so long as tuberculous meat and milk are used. "The disease is contagious, infectious, and not congenital. It is transmissible, especially through the alimentary canal and respiratory tract. Rabbits kept near tuberculous patients contract the disease in twenty-seven days. Rabbits suspended in cages so as to breathe the air exhaled by tuberculous cattle contract tuberculosis. The lungs are the primary seat of the infection. It may be contracted through the integument, mucous membrane, abraided epidermis, wounded and abraided surfaces. Tuberculosis in dumb animals is identical with tuberculosis in man. Transmissibility to other species is very frequent."

In a recent paper on the "Communicability of Tubercle through Cow's Milk," Dr. Louis Parkes, of the University College, London, says: "Whilst not denying that the tubercular virus may find other means of reaching the digestive tract than through unboiled cow's milk, it appears to me that there are no sufficient safeguards in the management of town dairies to warrant us in assuming that milk from cows in an advanced stage of tuberculosis has no chance of being mixed with the milk of other and healthy cows. In every dairy of any size there will probably be tubercular cows, some of them, perhaps, with tubercular deposits in the udders; and as it is the common custom with dairymen to mix together the milk yielded by different cows, it is not too much to assume that tubercle bacilli may be widely distributed in the milk supply of any town. It has been said that the tuberculosis of cattle is not the same disease as the tuberculosis of man, and that the absence of any proof of the human variety having ever been dependent upon ingestion or inoculation of the virus of the bovine variety tends to strengthen that belief. To this it may be replied that the bacilli of bovine tuberculosis are identical, according to all bacteriological methods known, with those found in tubercular formations in the organs of man, and that although the disease presents anatomical differences in man and cattle, these differences may be explained as being due to differences of soil in the human and bovine tissues, the bacilli ingrafting themselves in those tissues which presents conditions most favorable to their growth and development. Secondly, absence of proof may only mean want of observation or recorded data, and cannot be held to imply that at no future time will satisfactory evidence of the dependence of the human disease upon a bovine source be brought to light."

If time did permit I would quote at length from the paper of Dr. Paul Paguin, presented at the Missouri State Medical Society last May. He asserts that "the milk of tuberculous cows, especially those having lesions in the mammary glands [a common thing in grave cases, by the way], has been found by Degive, Bouly, and Nocard of France, Bollinger in Germany, Bang in Sweden, Harsten in Belgium, Lydtin in Switzerland, Fleming in England, and a few American pathologists, to be capable of producing tuberculosis. I myself have found extensive tuberculous lesions in the mammary glands of milch cows; and I have known of some cases of tuberculosis induced by bacillized milk."

The important question for us as physicians, is, can the danger of transmission be averted? So far as our present knowledge goes we might answer, not entirely, but if there be value in the carefully formed conclusions made from the scientific work of the last decade, much may be done to limit the number of victims of tuberculosis. We may not all be ready to fully endorse the statements authorized by the New York Board of Health, that tuberculosis is a distinct disease, that it is not directly inherited, and that it is acquired by the direct transmission of the tubercle bacillus from the sick to the dealthy, usually by means of the dried and pulverized sputum floating as dust in the air. For myself, I am convinced that in this direction is the safest path, and as no harm can come from excessive care regarding food and sanitation, I am willing to advise such care, though it seem to be excessive.

From experiments made upon animals and observations upon the human species, it is plain that much of the danger of contracting tuberculosis lies in the inhalation of air loaded with tuberculous sputa. Surely the danger can to a large extent be met by insisting that tuberculous patients should as far as possible use a cuspidore in which is a solution of bichloride of mercury at least 1 to 1000, for it has been demonstrated that the bacillus can live in solutions of less potency.

Cuspidores and cloths which are used to receive the expectorated material from diseased lungs, should as far as possible be kept moist and the bed clothing thoroughly freed from all power of contamination. There is nothing which demands correction more than the uncleanly and unsafe practice which many follow who have care of consumptive patients, of placing newspapers on the floor by the bedside upon which the expectorated masses are gathered and dried for free distribution in the household.

The careful disinfection of the room which a tuberculous patient has occupied is a matter of detail not to be overlooked by the medical attendant.

So far as protecting the public against food containing tubercular products is concerned, it can only be accomplished by thorough inspection. It is certainly the duty of each physician who is himself satisfied that such danger exists, to endeavor to impress the public mind with the importance of proper legislation upon this subject.

If we are convinced that tuberculosis is contagious, and will but work up to our convictions, it is possible that the first step will then be taken to place this much-dreaded disease under the same treatment as is small-pox and the once all-destroying plague.

Although none of us may be willing to ignore the agency of individual tendency, physical formation, and other conditions as predisposing factors in the causation of tuberculosis, yet, as we get away from the idea of heredity and approach the more tangible view of transmission, the future is brighter with promise, and will, I have no doubt, be more abundant in practical results.

ANTISEPTIC SOLUTIONS.

A Paper read before the Cincinnati Medical Society, September 17, 1889,

By F. W. Langdon, M.D.,
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Mr. President and Fellow members:

In responding to the request of our worthy Secretary for a paper on "Antiseptic Solutions," I trust that I may be pardoned for considering the subject in its practical, every-day bearings, rather than from a purely theoretical, mycological or chemical standpoint. Of the practical advantages derived from the use of antiseptics there remains no doubt in the minds of the vast majority of practitioners of our art; and this is true not alone of the operative surgeon, but even the practices of the physician and obstetrician have been vastly modified by their introduction and general use.

While these substances may be unnecessary in many instances, and perhaps even harmful as sometimes used, there undoubtedly remains a field where their use is absolutely essential to the best possible results. Hence a consideration of the most available remedies of this class becomes a matter of sufficient importance to merit our attention and study.

Solutions of antiseptic substances, the subject of the present paper, comprise two classes of bodies, viz.: (1) Aseptic solutions—those which exclude or remove bacteria and their products; (2) antiseptic solutions—those which prevent the development and increase of bacteria which have already gained entrance to the body and which cannot be certainly removed except by natural methods.

In either class we may meet varying indications with three *forms* of solutions, viz.: (1) liquids; (2) viscid preparations of a varnishy consistence; (3) semi-solids, such as ointments and starchy or jelly-like compounds.

Oils and oily solutions, generally speaking, are almost discarded by the highest authorities for any serious antiseptic purposes, though still applied, as one of our local physicians has said of other remedies, "placebolically."

It is evident that some of these bodies may be classed as either aseptics or antiseptics, according to the circumstances attending their application.

Of the *aseptics* in liquid form, we may place at the head of the list, both in importance and frequency of use, *water*, the universal cleanser, without which most of our aseptics and antiseptics would be valueless. Of course, pure water would be most desirable—theoretically—but in its practical absence various methods are resorted to to purify it from objectionable matters. Here boiling, effective filtration, or the addition of *anti*-septics have their proper places under varying circumstances, and are to be commended in the order named. Other additions to water *not* strictly antiseptics, but exceedingly useful as contributing to its *aseptic* value, are soaps and alkaline salts—such as soda, potash and ammonia—which, by increasing its solvent power over greasy and albuminous secretions, renders their removal, with their contained bacteria, more practicable and complete.

Of all substances used as aseptics water best meets the indications for a simple, harmless and effective agent for the removal of septic organisms and their products (ptomaines) from large areas of exposed tissues due to injury by operation or otherwise. The experience of Lawson Tait and others has conclusively shown that for intra-abdominal operations, free irrigation with plain warm water gives results at least equal to those obtained by any antiseptic additions.

In extensive lacerated and contused injuries, where vitality of the part is endangered and primary union not possible, I know of no application superior to the continuous immersion of the part in a moderately warm bath, constantly renewable from a hose or spigot. This is a non-irritating dressing, an excluder of atmospheric air and its contents, and a protector from temperature changes; all of which are of course important factors in the production of granulation tissue. The inconvenience of this method under some circumstances, and its non-applicability to certain parts, limit its range of usefulness very materially; but its great value is always deserving of consideration in suitable cases.

Like other useful substances, however, water, as a surgical dressing, has its disadvantages under certain circumstances. In that class of operations where primary union is sought, any continuous wet application may retard or defeat the main object; so that here even simple water may be objectionable in two ways, viz.: First, it may, by its simple presence as a foreign body, prevent the desired co-aptation of surfaces; secondly, by dilution of the repair material (lymph) or maceration and swelling of leucocytes, plastic union may be prevented. Hence the advantages of the "dry method" in these cases.

Notwithstanding the great value of water as an aseptic agent, it may often be supplemented, or even replaced, with advantage by aseptic dressings of our *second* group, viz., varnishy preparations. Among the most valuable of these are (1) collodion, (2) compound tincture of benzoin. By means of either of these a clean or cleansed wound may often be closed and thus converted practically into a subcutaneous injury; or a compound fracture converted into a simple one.

Our third group of aseptic preparations includes the ointments, cerates and glycerites, which find their chief field of usefulness as protectors of lacerated or granulating surfaces, where watery applications are, for any reason, objectionable. The convenience with which these preparations may be combined with anodynes (cocaine, morphia, atropine) is also a point in their favor.

Of the ointments and cerates, the basis or solvent is preferably petrolatum (commonly called by its patented names of vaseline or cosmoline); as it does not become rancid, it has advantages over fats of all kinds when protection, not absorption, is sought. As its fluidity at body temperature is an objection, it may be advantageously combined with beeswax. To extend its usefulness and meet special antiseptic indications, it may carry, in solution or mixture, carbolic acid, boric acid, salicylic acid, menthol, ferrous sulphate, etc.

A compound of jelly-like consistency that I have found extremely useful in protecting lacerated and granulating surfaces, and in keeping them moist without undue maceration, is the Glyceritum Amyli, U. S. P. It is superior to petrolatum in that it is more hygroscopic, and hence never permits a dressing to become hardened and adherent to the healing surface, as is too often the case with both the petrolatum and the greasy preparations. As its consistency does not permit it to readily soak through the fabric dressings, it is also superior to other glycerine combinations, such as boro-glyceride.

I have commonly used the glyceritum amyli combined with corrosive sublimate, which may first be dissolved by itself in a small quantity of pure glycerine and then incorporated with the glycerite, *e.g*:

℞ Hy. chlor. corros., } ft. sol. { gr. ss.
Glycerine, ʒss.
Glyceritum amyli, q.s. ad. ℥i.
M. Apply on gauze or linen.

The credit for its introduction to me belongs to some English surgeon whose name I cannot now recall, who recommended it highly in one of the journals.

Dr. J. E. White (*Canadian Practitioner*, 1888) speaks very favorably of a gelatine dressing, as preferable to ointments for protective purposes (gelatine one part, distilled water two parts), to which may be added antiseptics if desired. He also states that a modification of this has long been used as a protective for burns and scalds in some of the New York hospitals, the formula being: white glue, 8 oz.; glycerine, 1 oz.; carbolic acid, 2 drs.; boiling water, 1 pint. He speaks of this as a decided improvement on "the abominable linseed oil and lime-water."

While the class of bodies considered under the head of *aseptics* may meet the indications in a large number of cases, there is perhaps a larger number in which the exclusion or even removal of septic organisms is impracticable. They have entered at the time of, or after, the receipt of the injury, and cannot be completely dislodged from all the interstices of the the tissues by any application. Here our second class of remedies, viz., *antiseptics*, to prevent their development and increase, or to actually destroy them, finds its appropriate field.

As the surgeon does not have the privilege of making every wound or of overseeing its immediate treatment, antisepsis occupies an important place in his treatment of every-day injuries. Although some of these bodies may often be used pure, it is perhaps more customary to dissolve them in some of the aseptics already considered; thus we may have (1) liquid and (2) ointments and jelly-like antiseptic solutions and mixtures; to these we may add a third division, *i.e.*, gaseous or volatile bodies, as some antiseptics are capable of application through the medium of atmospheric air,—in the disinfection of rooms, for instance, by burning sulphur the atmosphere is charged with sulphurous acid gas, which penetrates all crevices and porous bodies better than any watery solution.

Taking the antiseptics in the order of their most frequent use at the present day, we have solutions in liquids of:

1. Hydrargyrum chloridum corrosivum.
2. Acidum carbolicum.
3. Acidum boricum.
4. Zinci chloridum.
5. Ferri sulphas.
6. Iodoformum.

While many other substances are available as possessing more or less antiseptic value, it is probable that those above mentioned would meet every requirement of the most extensive range of cases.

The first of these, the corrosive chloride of mercury, is *not* the most powerful antiseptic at our command, for it is inferior, experimentally speaking, to mercuric iodide, silver iodide, and hydrogen peroxide; by reason, however, of its accessibility, cheapness, ready solubility, portability and practical effectiveness, it is probably the most generally used antiseptic applied to living tissues at the present day.

While used in varying strengths to meet different indications, a solution of 1 : 1,000 in distilled water is a convenient standard from which the weaker ones may be prepared. For continuous application, or for irrigation of large areas where there is danger from absorption, a strength of 1 : 10,000 to 1 : 5,000 is best suited.

The liability of these solutions to undergo decomposition, with conversion of a portion of the salt into calomel, is lessened or prevented by the addition of sodium chloride, two and one-half grains to the ounce of solution; ammonium chloride is also used for the same purpose. Solution with river, well or even rain water is objectionable on chemical grounds, but cannot always be avoided; of these, rain-water is of course to be preferred where obtainable, next filtered river water, and lastly that from wells or springs. Boiling the water is an advisable procedure when the weaker solutions are used. Metal vessels are to be avoided. In any event decomposition of a portion of the salt is to be expected, during use, by the albumens and salts of the tissues and fluids of the body.

Sir Joseph Lister has recommended the solution of the bichloride salt in excess of blood-serum, forming a double albuminate of mercury, which he claims possesses practically all the antiseptic value of the bichloride, and does not irritate the skin, even when used in the proportion of 1 : 100 of the salt.

The tablets of mercury bichloride of various makes now on the market afford a convenient method of transportation and preparation of exact solutions.

Another exceedingly practical item in the preparation of any solution of the bichloride is the fact that it is freely soluble in three parts or less of cold glycerine; such solution of the salt, previous to adding the required water, favors its equable distribution throughout the mass, thus avoiding accidents from precipitation or imperfect solution.

Ordinary cheese-cloth boiled, then dried in an oven, and finally soaked in a 1 : 1,000 to 1 : 500 solution of corrosive sublimate makes a cheap and effective gauze dressing, combining the desirable qualities of antisepsis and drainage; and is in common use as a dressing to operation wounds and suppurating surfaces. It should be transported wrapped in oiled or waxed paper to preserve its dampness and prevent particles of the antiseptic from flying about in the air.

One may easily prepare his own gauze if he prefers, and a number of makers have such material on the market. In Cincinnati Prof. Karl Langenbeck prepares an excellent article, which I have used extensively with entire satisfaction.

Finally, it remains to speak of solutions of corrosive sublimate for internal and hypodermic use. Three rules apply to its use here:

1. It should be given *alone*, dissolved in glycerine first (one part bichloride to three or more of glycerine by weight), and then added to the requisite quantity of water to make the required number of doses.

2. The solution should be ordered in moderate quantity and not kept on hand for a long time before use; it is then unnecessary to add another chemical to insure stability. The commonly advanced argument that combination with potassium iodide is desirable as producing biniodide of mercury is not a good one, for we may prescribe the latter salt direct in exact dose if we desire its action.

3. When used hypodermically the in-

jection should be made *deeply into the muscular tissues*, the upper gluteal region affording the most convenient site.

I can speak favorably of this method of administering the remedy from a somewhat extensive personal observation, having found it effective in controlling late syphilitic manifestations (gummata, nocturnal headache, periostitis) in cases where potassium iodide in large (60 gr.) doses, alone and with mercury, by the mouth, had failed to give relief. Some smarting, lasting from three to ten minutes, attends the injection, and induration follows in twelve to twenty-four hours, but I have never produced or seen produced an abscess, although using the injections (⅛ gr.) every other day for two weeks. It is advisable to select different spots, at least two inches apart, for these injections. The effect is probably the formation of a greater or less amount of albuminate of mercury at the point of induration, which is slowly absorbed, so that the effects are continued for several weeks after the injections are discontinued. After the most obstinate symptoms are controlled by a two weeks' course of injections, the disease is more easily managed by the ordinary methods.

While for most external antiseptic purposes the corrosive chloride is a general favorite, its objectionable effects on instruments lead us to turn to *carbolic acid* as the next most important antiseptic in common use, and one that is even yet preferred by some surgeons for general purposes, as the safer of the two. It must be conceded, however, that *safety* in antisepsis, as in antipyresis, is a comparative term, all being capable of producing harm where injudiciously used. For cleansing instruments the carbolic acid is used in solution of 1 : 40 to 1 : 20, and the weaker of these may also be used for wounds of limited area, but is too strong for prolonged contact with extensive surfaces. The anæsthetic effect of the acid on the exposed nerves is often a desirable accompaniment of its use. The ready miscibility of carbolic acid with pure glycerine is also to be be borne in mind, previous mixture with glycerine facilitating its equable distribution in a watery solution and avoiding the accumulation at the bottom of the vessel of drops of pure acid.

To the use of carbolic acid solution in the form of spray I will merely refer, with the remark that it seems to have been almost universally discarded by English and American operators, though still in favor in some quarters on the Continent. It undoubtedly has been productive of harm by absorption in large serous cavities, and I have myself seen its toxic effects, manifested by the characteristic black urine, from simple daily irrigations of a large granulating surface with a weak (1 : 100) solution. Nevertheless, it is a valuable antiseptic under suitable circumstances, and in the usual form of gauze makes an excellent permanent dressing, second only, perhaps, to the corrosive sublimate on account of its volatility.

Third on our list of antiseptics stands *boric acid*. While a weak member of the series, antiseptically speaking, it has the merit of being comparatively non-irritating to tissues in almost any strength of solution; and used pure, in the form of impalpable powder, possesses the valuable properties of promoting drainage, disinfecting discharges, and combining with blood and other fluids to form a firm protective (artificial) scab to small wounds. Thus it is a particularly serviceable application to the edges of wounds after plastic operations about the face and other parts where a permanent gauze dressing is inconvenient or impossible. In solution it is also a safe and effective antiseptic for washing out the bladder, etc.

Solutions of *zinc chloride*, the fourth member of our list, are used for their caustic as well as antiseptic effect, and are especially valuable in comparatively inaccessible parts and cavities after removal of malignant growths, where, for any reason, it is impossible to be certain that the diseased tissue is all removed. The cheapness of this salt is also a point in its favor for the disinfection of vaults and cess-pools.(1)

The fifth member of our list, *sulphate of iron*, is in common use for disinfecting excretions, privy vaults, cess-pools, etc.; and its cheapness and efficacy makes it an especially available agent for this purpose, although experiment shows it to be inferior to corrosive sublimate for destroying spores of some kinds. A solution of four pounds to the gallon of hot water,

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1 See, on this subject, "Disinfection and Individual Prophylaxis against Infectious Diseases," by Geo. M. Sternberg, U.S.A., in American Public Health Association Prize Essays. Concord, 1886.

kept in an earthen or wooden vessel, is a convenient disinfectant for discharges in the sick-room. Being inodorous itself, it does not substitute one unpleasant smell for another.

It is my firm conviction, however, that the value of the sulphate of iron in a surgical sense is not sufficiently appreciated by the profession generally. In weak solution (gr. v. to ℥i.) it is by far the most satisfactory local application to erysipelatous areas, whether of surgical or so-called idiopathic origin, that I have ever had occasion to use. The part is to be kept constantly covered with a layer of lint or cotton cloth, saturated with the solution. In ordinary cases no internal treatment is necessary. A somewhat extended and very satisfactory experience with these cases warrants me in emphasizing the great value of this application; and I desire to give proper credit to the late Dr. C. S. Muscroft, Sr., for first directing my attention to its usefulness. Under the name of "Iron Wash" (ferri sulph. ʒi. aquæ dest Oi.) it was his most usual application to operation wounds. The same treatment for erysipelas is held in high esteem by some of the older English surgeons, and Velpeau recommended the use of *strong* solutions of the salt for the same purpose. In my opinion the treatment is well worthy of revival; by its prompt use the spread of the area of inflammation is arrested and the duration of the disease materially shortened.

Objections to its use are the rust stains on the bedding and clothing, due to its oxidation; these may be prevented by proper care and the use of protectives of rubber or oilcloth.

An allied salt—the sub-sulphate of iron—Monsel's salt (chemically basic ferric sulphate $Fe_4O(SO_4)_5$) is a much used and very efficient application to diphtheritic membrane, used in the form of the officinal solution—pure or diluted as desired.

Iodoform, the last member of our list, is in common use in powder, solution and ointment form. Being practically insoluble in water and only sparingly so in alcohol, solutions for surgical use should be made in ether, in which it is soluble in the proportion of 1 : 5.2, or about ninety grains to the ounce. Thus dissolved it may be painted over suppurating surfaces or injected into joint cavities, etc., the ether evaporating and leaving a thin film of the powder over the wound surface. It is also valuable as a local anæsthetic. The same solution may be used for impregnating gauze, but for this purpose common benzoin would be preferable as a solvent on the score of economy, and doubtless equally effective in every way, as the substance is freely soluble in it. A Tonquin bean kept in the bottle or the addition of oil of gaultheria or other essential oils somewhat diminishes the unpleasant odor of the drug, which is the chief objection to its use, and is a very weighty one in private practice.

Numerous other substances might be referred to in connection with our subject, and doubtless many favorite applications have not even been mentioned; but as this paper has already exceeded desirable limits in considering the commonly available and essential bodies of their class, I will not trespass further on your time and patience.

[For discussion see page 422].

Test for Blood.—A simple test for blood, and easy of application, is made by the addition of tincture of guiac and ozonized ether to a weak solution of blood, when a bright blue color is produced. If a drop of blood be mixed with one-half ounce of distilled water, upon the addition of one or two drops of tincture of guiac a cloudy precipitate of the resin appears, and the solution has a faint tint. If to this solution one drop of an ethereal solution of hydrogen peroxide is added, a blue tint appears, which, upon a few minutes exposure, gradually deepens. This test is very valuable for minute quantities of blood, and one experimenter succeeded in obtaining sixty impressions from a stain upon cloth where the microscope failed to show any blood.

Medical men in general are probably not aware that in France the doctor's claim on the estate of a deceased patient has precedence of all others. Even the landlord's claims for arrears of rent must yield to the doctor's fee. The courts have decided that as it is an imperative right of humanity that the dying should have the necessary care and treatment, such attendance should be paid for before all other debts.

SUB-NORMAL TEMPERATURE DURING SECOND WEEK OF TYPHOID FEVER.

A Paper read before the Cincinnati Medical Society May 7, 1889,

By W. H. DeWitt, M.D., Cincinnati.

There was nothing peculiar in the history of this case during the first week. There was the gradual rise of temperature usually observed in these cases. I think the maximum reached was about 103.8°. During the first twelve days I prescribed four grains of antifebrin every five hours without producing the least disturbance; other than reducing the temperature at times almost to normal, this reduction not being accompanied at any time with chilliness or other indications of collapse. As I remember, at about this time I reduced the dose of antifebrin one-half; that is, I directed the mother to divide each of the four-grain powders into two equal parts, to be given as before — every five hours. The evening of the second day after decreasing the amount of medicine, and about one hour and a half after administering the powder, he began to complain of chilliness, and broke out in a profuse cold perspiration; the pulse dropped down from 100 to 60 beats per minute, and became very irregular; the temperature at the same time fell to 96.8°. The father, being a physician and prominent specialist in the city, on entering the room recognized the change in the patient's condition and at once began the liberal administration of stimulants, which in a short time brought about the desired reaction. The father was disposed to attribute the depression to the antifebrin. I could not think so, from the fact that he had taken for more than one week very much larger doses without the least disturbance. However, to test the matter, the dose was reduced to one grain; still, at about the same hour each day, the the same symptoms presented themselves. Finally, the antifebrin was dropped, to be still followed by the same peculiar train of symptoms. The sub-normal temperature, reduction of pulse-rate, and, indeed, all the symptoms observed in a state of extreme depression, developed each day for at least seven days.

There can, I am quite sure, be no question as to the character or nature of the disease. It was typhoid, with perhaps a malarial complication (typho-malarial). The stools were characteristic, and other abdominal symptoms were unmistakable. The duration of fever was about twenty-three days.

[For discussion see p. 419].

NEPHRITIS AND ALBUMINURIA IN THE TYPHOID FEVER OF CHILDREN.

From a study of twenty-five cases of typhoid fever, all of which were complicated with albuminuria, Dr. A. Geier, of Heidelberg (*Jahrbuch f. Kinderheilkunde*, Bd. xxix., Heft 1—*D. med. Zeit.*, July 22, 1889) arrives at the following conclusions:

1. Albuminuria is of very common occurrence in the abdominal typhus of childhood; it appears mostly in the first week or in the beginning of the second week, occasionally even on the second day. Its duration is variable, usually continuing from one to two weeks.
2. Nephritis occurs as frequently as in adults. The higher grades, however, amounting to renal insufficiency (hydrops), appear to be less frequent than in adult life as a consequence of typhoid fever. There is in childhood no especial renal form of typhus.
3. Children are subject to infectious diseases through which the kidneys often become affected, as in scarlet fever. These leave the individual more liable to the development of nephritis should typhoid fever occur within a short time after his recovery.
4. Fever, albuminuria, and nervous symptoms in typhoid fever are the result of one and the same cause—namely, intoxication of the system by the poison produced by the typhoid bacilli. J. M. F.

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations. Leonard Freeman, M.D.,
J. C. Oliver, M.D.,
Otis L. Cameron, M.D.,
F. O. Marsh, M.D.,
Curators and Microscopists.

DEATH DURING ANÆSTHESIA WITH CHLOROFORM.

A Paper read before the Cincinnati Medical Society, September 17, 1889,

By WM. L. MUSSEY, M.D., Cincinnati.

A patient, accompanied by a friend, presented himself at my office Tuesday evening, September 3, 1889, on account of an injury to his right thumb, incurred about half an hour before. The injury was caused by a falling box, and consisted in a cut on both sides of the thumb in its long axis lateral aspect, extending to about the center of the proximal phalanx. The distal phalanx had been forced through the skin at a point just posterior to the nail, which, with the muscles on the palmar surface of the thumb, lay below it. This condition of affairs was not thoroughly determined until after the anæsthetic was administered.

The patient, a man of apparently thirty years of age, well developed and nourished and of medium height, was extremely nervous and excited; so much so, in fact, that no examination could be made, for on merely attempting to wash away the blood he nearly fainted and asked for an anæsthetic. This I refused to give without medical assistance nor in my office, and advised him to go home, where the anæsthetic could be properly administered. I then called for Dr. Charles Seth Evans, who accompanied me to the man's home. I had decided to use chloroform in the case, for I wanted but short anæsthesia and wished to have it rapidly induced. The ordinary, well-known inhaler was the one employed. On reaching the man's home we found him much quieter, but he still insisted on the use of an anæsthetic. While I was preparing the instruments for what might be necessary, Dr. Evans examined the man's heart and pulse. He reported a slight indistinctness of the first sound at the apex; the pulse was full and regular. My remark at the time was: "Use as little as possible, and be very careful." The chloroform was in an ordinary four-ounce bottle, the cork of which had been cut, so that the fluid escaped only drop by drop. At first the patient took the anæsthetic very easily, respirations being full, deep and regular. He soon began to struggle to a slight extent, which was followed by a quiet period, to be followed in its turn by marked struggling, ending in a sort of tetanic spasm, with opisthotonos, and then collapse. I immediately seized the thumb and succeeded, without any trouble, in bringing the soft parts back over the bare distal phalanx, when a few stitches would have completed the operation. During most of the tetanic spasm above referred to the inhaler had been entirely removed from the patient. I then noticed that the patient was not breathing. We immediately brought the shoulders and body over the side of the bed, lower than the hips and the head lower than the shoulders, and practiced artificial respiration. We were rewarded by several gasping, sighing expirations, and then gave hypodermic injections of whisky in the arm and over the region of the heart. There was at this time no radial pulse, and although we thought we heard the heart beat, I am now convinced that we were mistaken. I then gave hypodermic injections of ether, and we continued the artificial respiration for about an hour, but with no further result. The only signs of life during all this time were the few gasping expirations at the beginning and the fancied heart beat.

I do not think that the especial anæsthetic, chloroform, had, necessarily anything to do with the fatal result, as I am firmly convinced now that any other anæsthetic would have had a similar effect. And I, furthermore, believe that any attempt to have reduced the injury, even without any anæsthetic whatever, would have resulted in a state of collapse from which it would have been very difficult to have restored the patient, even if it were possible at all. I afterwards learned, in talking with the father of the deceased, that he never was able to bear any pain, but was always nervous and very excitable whenever subjected to it. The greatest caution was observed by Dr. Evans in administering the chloroform, of which not more than a drachm was employed, the inhaler not being over the man's face more than three minutes. It developed during the course of the inquest that the deceased had never complained of any heart trouble during his life time, but had always been strong and well. The verdict of the coroner was death from paralysis of the heart.

[For discussion see page 420].

Correspondence.

CHIT-CHAT FROM LONDON.

LETTER NO. III.

LONDON, August 26, 1889.

Editor Lancet-Clinic:

Over fifty thousand persons submit themselves annually to treatment as in-patients at the London hospitals, while near two millions more apply as out-patients. These persons seem to belong to all ages and classes. Indeed, every every effort is being made to weed out those whose worldly possessions give them no claim upon these charitable institutions. Little success, however, attends these efforts, owing, it is supposed, to the indifference of the hospital surgeons to the interests of the general practitioners, whose incomes, in consequence of this abuse, are much curtailed. There is much competition among these hospitals for the contributions and legacies of the benevolent. Hence much money is expended annually in advocating their respective claims. To me it appears that the more money a hospital receives the poorer it represents itself to be. The government itself is about to inquire into the financial condition, and correct whatever extravagance in expenditure may be found to exist. Every device to bring these charities to the notice of the public is resorted to. Collectors are found at every work-shop; boxes, with the request to drop a penny, are at every railway station, at every hospital door, at most public buildings, as well as in many stores. There is Hospital Sunday, with sermons soliciting subscriptions; Hospital Saturday, with persons on the streets distributing hand-bills appealing for help—young girls of the better class, with dainty forms and fascinating manners, with all the freshness and beauty that nature accords to the last of God's creations, at every corner, with pleading glances that must melt the most obdurate heart.

There is a large influx of out-patients at the hospital; several rooms are often occupied at the same time, and various medical men, in order to relieve the pressure, are engaged in ministering to the needs of the crowd. There is really a surfeit of operations—the monotony of operating becomes oppressive. Any suggestions by a foreign practitioner of repute seem to be adopted as a variation. The author is invited as a visitor, and may sometimes be seen assisting in the operation. At the Moorfields Ophthalmic Hospital, especially, the crowd is large; several successive men operate on the same morning. A colored brother stands gazing from the outside of a stand of instruments, as if overawed, as the operator traces the outline of a cornea with the galvano-cautery, or binds down with strong ligatures a glass globe in the socket two-thirds the size of the removed eye. While at my elbow stands one from the Far West, whispering of a rencounter he had with a defeated candidate from his district, who was in London placing a newly-discovered mine upon the market. Down stairs the darkened rooms are filled with students, looking intently through the ophthalmoscope at affected retinæ One observer dismisses the patient with the remark, "Oh, you want a glass," and is met by the woman with this rejoinder, "No, sir, thank ye; I never drink." While another, rather fresh, sees in a glass eye choroiditis with detached retina. (This is a fact.) There is the cockney with the hypermetropic eye, saying as he reads Smellie's test type, Hay, He, Hell, for A.E.L. And there are two of the surgeons at variance as to the nature of a skin disease with which a patient is afflicted. Upon the desks of these men are bunches of homely flowers — the marigold, the pansy, the sweet William and the fragrant stock—from the humble gardens of the grateful poor.

I think medical men may recommend the wearing of spectacles too frequently, for many more persons wear them now than formerly. At the shop window of an optician on Bond street there are spectacles advertised for use in India, for tropical climates, for railway travelling, for shooting, for fishing, for snow, for sketching, for lawn tennis, for wind or dust, for bicyclists, for hypermetropia, for myopia, for squint, as well as tinted glasses for electrical engineers.

There is no branch of medicine that admits of so much humbug as gynecological practice. At the Woman's Hospital a fine morning brings swarms of women, who, with minds ill at ease, believe themselves to be suffering from uterine affections. One after another they roll upon the bed to be examined by what is disrespectfully called a "stink finger," without any evidence of disease being discovered. Some of them are pregnant, but most of them have impaction of feces, and need evacuants; a few of them require a pessary to be readjusted.

Gynecology, in recent years, has made greater strides and enlisted in its practice greater minds than almost any other branch of medicine. While attending at the Woman's Hospital in London and listening to the details of treatment, I was forced to the conclusion that, while our diagnosis was almost as accurate as that of our English brethren, our treatment was better. Although Apostoli's method was being used and the current per vaginam and abdomen was being applied almost as high as 200 milliampères — indeed, until the patient complained of pain and winced under the operation—there seemed but little confidence placed in its efficacy, and incisions for the removal of fibroids were mainly resorted to. Ohio men, wherever they are, may usually be seen, and especially when an English gynecologist operates for laceraation of the os uteri by the method advocated by an American, it seemed only proper that each limb of the patient should be held, as was the case, by a medical man from Ohio. A protruding ankylosed coccyx appeared to accompany most of these lacerations operated upon. In the treatment of dysmenorrhœa dependent on congestive endometritis and narrowing of the uterine canal, a modification of Sims' speculum was introduced, the anterior lips of the os hooked down and the "pin-hole" rapidly dilated with successive steel sounds, soft tents being utterly condemned as liable of being buried in the womb. The offensive, persistent, and almost irremediable leucorrhœal discharges are certainly much relieved, if not removed, by the subsequent introduction, after dilatation, into the uterine cavity, preceded sometimes by scarification, of slips of lint one-third of an inch broad and three inches long, previously immersed in equal parts of compound tincture of iodine and glycerine.

At the Cancer Hospital one is transported to a beautiful building, lately endowed with a legacy of five hundred thousand dollars. The surrounding grounds are green with lawns, that rebound like velvet to the weary feet. While birds, unmolested among the trees, sing their cheerful carols, and flowers, unlimited in number, minister, by their fragrance as well as variety in form and color, to the awakening senses of the convalescent. Here the American, on presenting his pasteboard to the brotherhood, is sure of a warm welcome; not only so, but the nurses, belonging to a class much better educated than in former years, dressed in natty white caps and snowy aprons, looking remarkably "cute," recognize, with a pleasing smile and manner, the relationship which is sure to win for them a kindly word or two on the sly. As one witnesses the removal of one breast after another and observes the manifold variety and location of malignant diseases, he begins to realize the apparent increase in recent years of these affections. In removal of the diseased mamma the operator searches the axilla and extirpates the implicated glands, sews up the wound with the continuous suture, and inserts the drainage-tube, made either of glass or rubber. One of the surgeons had removed seven affected uteri in which the os and vaginal walls were unaffected; five of these cases recovered and two died. In one instance, subsequent to the operation, a lump was found protruding into the vagina, which consisted of a bundle of stitches. A Chicagoan, who was present, remembered one such case, where the stitches came out in a gathering upon the abdomen and were removed by the patient.

In the hospital for affections of the throat, nose and ears the crowd is usually enormous. There is a great sameness in the character of the diseases affecting a special organ. The cry "swallow" becomes tiresome, as the patient, with his mouth filled with water, has to empty it simultaneously with the forcing of air through the nostrils into the Eustachian tube. There is always a difficulty in selecting a laryngoscopic lamp. I use the ingenious electric lamp of Trouvé, but in this hospital the oxyhydrogen lamp is preferred; the light is made to pass through two thick sheets of glass separated by water. Türck's method of illumination with a glass globe filled with water placed before a gas flame is also made available. In the course of the practice some interesting cases arise. Unilateral paralysis of the abductors in one case, and in another of the thyro-arytænoidei muscles. Paralysis is difficult to discern, but more difficult to define the initiative cause. One woman, who was always in the act of swallowing, had varicose veins of the epiglottis. The true as well as the false cords, the posterior commissure as well as the arytænoids, were found the seat of ulceration—one or another from phthisis, syphilis, lupus or epithelioma. One case of sarcoma had been operated upon. There was no instance of catarrhal ulceration. Looking through the mirror at the ulcer it would be hard, apart from the collateral symptoms, to define its true character. It is difficult in these cases to see how local treatment alone can be of much benefit to the patient, only in arresting ulceration till constitutional treatment has time to assert itself. Pharyngitis sicca, or dry catarrh, with atrophy and enlarged nasal cavity, as well as adenoid vegetations of the naso-pharynx, came under treatment. These small white and reddish nodules are common, apparently, in young persons. My friend, protecting his finger with a leather cover, forced it into the throat. The lad, bleeding, looked astonished to see the finger he had bitten unhurt. In using the guillotine on a small girl with enlarged tonsils, the fight between patient and operator became so pronounced that the janitor, who held the child, grew pale and relinquished his job, not even rising to the dignity of an acolyte in our profession. Neoplasms were snared, but many mucous polypi were removed by the forceps. Enchondromata and osteomata were cut through with saws or *écraseur*. The galvano-cautery was often used, not only in destroying new growths, but also in removing the sensitiveness of the erectile tissue of the turbinated bodies in reflex neuroses; its abuse, however, was known to have given great distress to patients in perversion of olfaction, or in some cases total anosmia. This made operators very cautious in its use. Yours truly,

"Bull's Eye."

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Society Reports.

CINCINNATI MEDICAL SOCIETY.

OFFICIAL REPORT.

Meeting May 7, 1889.

The President, Jos. Eichberg, M.D., in the Chair.

Edward S. Stevens, M.D., Secretary.

Dr. W. H. DeWitt read a report of a case of

Subnormal Temperature During the Second Week of Typhoid Fever (see p. 415.)

DISCUSSION.

Dr. S. C. Ayres remarked that his interest in the case just reported lay in the fact that the patient was a member of his own family. He was sitting up reading on the evening this phenomenon was first observed. He had noticed that the temperature of the child was falling. At eleven o'clock he went to the patient's bedside and found him in a condition approaching collapse. He was breathing heavily, his pulse, which was at this time about sixty-five, was weak, and intermitted at every fifth or sixth beat; he was covered with a cold perspiration. The doctor aroused him and gave him champagne. He began to get better under stimulation, and in an hour his skin was warm and his general condition less alarming. He had thought the symptoms of collapse were due to the antifebrin, but in his practice he never had occasion to use the drug, and Dr. DeWitt, who was in charge of the case, thought the antifebrin had nothing to do with it. The next evening the medicine was given at eight o'clock and in two hours the subnormal temperature again came on. The next evening it was not so low, but for several evenings the same thing occurred. This seemed to be a crisis, if there is such a thing, for he never had any elevation of temperature afterwards.

Dr. Carson: How much antifebrin was used?

Dr. DeWitt: Four grains every five hours for eight or ten days. It was then diminished one-half and finally to one grain.

Dr. Carson said he did not believe that the antifebrin caused the depression of temperature. These rises and falls occur in the course of typhoid fever almost habitually.

Dr. Eichberg said that the phenomenon was evidently a crisis in the old meaning of the word. There are cases of this kind. He recalled the case of a boy, six or seven years of age. He had had two relapses; his diarrhœa was excessive; temperature 102·5°; pulse weak and thready. At about eleven o'clock the temperature came down, the diarrhœa stopped, and perspiration came on. Improvement began from that time. He had never seen a case show so marked a dividing line between the times of progressive sickness and recovery. In children it is not uncommon to see cases of aborted typhoid.

Dr. Carson spoke of having seen several similar cases, in one of which the family discovered a temperature of 96° in the fourth week.

Meeting of September 17, 1889.

The President, Jos. Echberg, M.D., in the Chair.

Edward S. Stevens, M.D., Secretary.

Dr. Wm. L. Mussey read a paper entitled

Death During Anæsthesia with Chloroform (see p. 416.)

DISCUSSION.

Dr. Holmes: How long was he under the influence of the anæsthetic?

Dr. Mussey: It was not over three minutes until the inhaler was taken away. Then the collapse came on. We worked for over an hour, and, although we thought we heard the herat beat, I believe now that we did not.

Dr. Holmes said that the result was a very unpleasant one. He had himself had a case die comparatively recently while under the influence of the A. C. E. mixture. Death occurs under all forms of anæsthetics. The question naturally arises as to the selection of an anæsthetic. He believed that what is known as mixed anæsthesia is the best. It was Nussbaum who first called attention to this method. He gave a hypodermic injection of morphia and atropia fifteen minutes before the anæsthetic was given. The plan has been highly commended, and particularly by Reeves, of Dayton, who has given considerable attention to the subject. The speaker had administered anæsthetics very largely in his private work, and, although he has seen many cases show alarming symptoms, there had been no fatal result until the one just mentioned, which occurred at the Cincinnati Hospital. He has now abandoned the use of the A. C. E. mixture. Fifty per cent. of chloroform cases die at the outset, proving that chloroform is dangerous at the beginning, while in cases of death during anæsthesia from æther, the fatal result is after prolonged anæsthesia. There have been about forty or fifty cases in all, in which during æther anæsthesia the patient died from primary heart failure. It had occurred to the speaker that it might be a good plan to begin the anæsthesia with æther, and after it was established to keep it up by means of chloroform. He had never tried it, however.

Dr. Langdon asked whether Dr. Mussey knew anything of the previous history of the man during that day—the kind of work he did, whether inside or outside work, at hand labor or as a clerk; what he had been eating, whether he had been well fed, or had eaten the usual cold dinner of the workingman. All these points he believed would shed light upon the case just reported. Every anæsthetic is dangerous, for we cannot set aside nature's laws without risk. In men of equal physique one man will have a stronger heart than another. Under varying conditions the same man will show a different state of heart beat at different times. He had noticed this in examinations for life insurance. In one man of perfect build, after a long fast and the smoking of four cigars, he had a pulse of ninety instead of seventy-six, which was what proved to be usual with him. If the man under Dr. Mussey's care had eaten a cold lunch and had been at work all day, the effect upon his heart would be marked, and the liability of his succumbing to the influence of the anæsthetic would be great.

As to mixtures, the speaker said he had generally found them to be unsatisfactory. He had been compelled to desist from their use on more than one occasion and resort to either pure æther or pure chloroform. In the usual mixture, the A. C. E. as it is called, there are three fluids of different weights that evaporate at different temperatures. It is not possible, therefore, to properly proportion the doses of the various parts. Another objection lies in the old-time theory that chloroform kills by producing cardiac paralysis, and æther by respiratory. If these are actual dangers, is it not all the more important that the mixture of the two anæsthetics should not be used, as thereby the danger to life is doubled?

Dr. Mussey, in reply to Dr. Langdon's question, said that he could say very little about the man's previous history. He believed that he had just been engaged to do some night work at the place at which the accident occurred.

Dr. Langdon: If he had been working hard all day, the addition of the extra night work would be further cause for a weakened heart.

Dr. Eichberg agreed with Dr. Langdon as to the undesirability of employing mixtures of different fluids for anæsthetic purposes. There is danger in them all. In A. C. E. there are fluids of different densities, of which the chloroform has the heaviest vapor. In administering this mixture in the usual manner, in a cone stuffed with cotton, the chloroform evaporates first and falls to the bottom, the æther being above it, and the dose of alcohol is practically not given at all. It is to all intents anæsthesia by chloroform. Clover's inhaler, which is so largely used in Great Britain, is hardly known in this country. The German method is safe and simpler than Clover's inhaler. The speaker had known anæsthesia to be induced in from two to three minutes, with not over fifteen drops of chloroform. Chisholm has said that the rapid lowering of the head will inevitably avert a fatal issue. It is very questionable if, in the case reported this evening, it would have had any such good effect, even if it could have been employed. But the principle is correct, and the speaker, when he administered chloroform, always made it a practice to lower the head at the start. Anæsthesia will produce anæmia of the respiratory center, and by lowering the head we can revive our patient. In an assembly of German naturalists in a debate upon the subject of the choice of an anæsthetic, some favored chloroform exclusively, while others abused it roundly. A man may have an individual opinion; but with such diversity of opinions among scientists he is not to be blamed for adhering to one or the other. The current of opinion is tending toward the employment of chloroform. The principle of a hypodermic injection of morphia and atropia is to be commended, as these drugs regulate the circulation. Certain operators will not permit an anæsthetic to be used for them unless the electric current is at hand.

Dr. Carr spoke of the danger which attaches to the employment of anæsthetics, and of the great risk one runs in using them in some of the minor operations. He related the history of a case he had had some six or eight years ago which had resulted unfortunately. He had hesitated about giving the anæsthetic which was asked for, and finally gave it against his better judgment. The operation was one of but a few minutes' duration, and by the use of cocaine it might have been rendered almost painless.

Dr. Eichberg said that in cocaine we certainly have a remedy which will render painless many of the minor operations, so that chloroform could be avoided. He had himself opened a finger by the aid of cocaine and scraped the bone for a patient, and there was scarcely any pain.

Dr. Carr: The removal of a thin nail was the operation to which I referred.

Dr. Hazard did not know that he could add anything to the physiology or the pathology of these cases. He was surprised some years ago to be asked by a surgeon if he was afraid to administer chloroform. He replied that he was not afraid, and asked why. The surgeon asked him if he did not know that it was as much as his reputation was worth to give chloroform. There had been several deaths from chloroform and the drug had been tabooed by the profession. He had himself given it many times, and under the direction of the father of the essayist he had in certain tedious operations kept the patient continuously under its influence for from three to four hours. He had never seen a death. Probably with one death occurs early, and with the other late, but where we require prolonged anæsthesia do we not run as great a risk with one as with the other? The speaker was glad to hear some say that they preferred chloroform as an anæsthetic. It was his own preference, though its administration requires care, and the administrator should do nothing else. He should not attend to the operation. Speaker had to do a double amputation at one time, and during the removal of the second leg he happened to look up and the person giving the chloroform was leaning over to watch the operation, his hand pressing upon the patient's face. But for his timely observance of his assistant the patient would have been smothered to death and the chloroform would have been given the credit for it. We should not be prejudiced against any anæsthetic.

Dr. Mussey had often wondered why it was that abroad there is a smaller percentage of deaths from chloroform than in this country, although here we are much more careful than there. He had seen it literally *poured* out upon the face of the patient in Vienna. He had concluded that the reason lay largely in the fact of our nervous temperament. Then abroad the people give themselves up more to the surgeon, as in the army.

Dr. F. W. Langdon read a paper entitled

Antiseptic Solutions (see p. 410).

DISCUSSION.

Dr. Holmes said that in the use of iodoform the odor could be disguised by putting a little freshly-roasted ground coffee in the bottom of the bottle. He had neglected to notice whether after a length of time it lost its effect.

Dr. Hazard spoke of his experience with iodol, which he found odorless, and which was claimed to be as efficacious as iodoform. He was glad to hear of the use of the glyceride of starch. He had learned to use it from Dr. E. Williams. He had found it of immense service.

Dr. Holmes had used iodol in the treatment of suppurations of the middle ear. It was expensive, and to him not so satisfactory as iodoform.

Dr. Langdon said that in ordering glyceride of starch it was best to examine a small quantity first, for it differed greatly as it came from different pharmacists, the consistency varing from a fluid to a very stiff solid. It should be of the consistency of jelly.

A doctor in Bootle, England, has the following printed on his prescription blanks: Gratefulness of the patient is part of his disease, is most prominent when the fever is highest, lessens during convalescence and disappears as health is re-established. Hence prescriptions only for cash.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending October 5, 1889.

Ward.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	1	..	...	..	3	2	...	..	...
2nd	...	..	1	..	...	..	3	1	...	..	...
3rd	...	..	...	..	...	..	7	..	...	..	...
4th	...	..	4	..	...	..	...	..	...	..	...
5th	...	..	...	..	...	..	1	1	...	..	...
6th	...	..	...	..	...	..	...	..	...	..	...
7th	...	..	...	..	3	..	1	1	...	..	...
8th	...	..	...	..	...	..	...	..	...	..	...
9th	...	..	...	..	...	..	...	..	...	..	...
10th	...	..	...	..	...	..	2	..	...	..	...
11th	...	..	...	..	...	..	...	2	...	..	1
12th	...	..	...	..	...	..	3	1	...	..	1
13th	...	..	...	..	...	..	...	..	...	1	...
14th	...	..	...	..	...	..	...	..	...	..	...
15th	...	..	1	..	...	..	2	1	...	..	...
16th	...	..	...	..	...	..	1	..	...	..	...
17th	...	..	...	..	...	..	1	..	...	..	...
18th	...	..	..	..	...	..	...	2	...	..	...
19th	...	..	...	..	...	..	1	..	...	..	1
20th	...	..	...	..	...	..	1	3	...	..	1
21st	...	..	...	..	...	..	6	1	...	..	...
22nd	..	..	...	..	...	..	4	..	...	..	...
23rd	...	..	...	..	...	..	1	1	...	..	...
24th	...	..	2	..	...	..	1	..	...	..	...
25th	...	..	...	..	...	..	6	2	...	..	...
26th	...	..	...	..	...	..	...	..	...	..	...
27th	...	..	...	..	...	..	...	..	...	..	...
28th	...	..	...	..	...	..	...	..	...	..	...
29th	...	..	...	..	...	..	...	1	...	..	...
30th	...	..	...	..	...	..	2	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	..	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	..	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	...	..	9	..	3	..	46	19	...	1	4
Last week.	6	..	2	1	...	2	47	14	...	2	4

The following is the mortality report for the week ending October 5, 1889.

Croup	4	
Cholera Infantum	1	
Cerebro-spinal Meningitis	1	
Diarrhœa	1	
Diphtheria	19	
Typhoid Fever	1	
Other Zymotic Diseases	1	28
Cancer	4	
Phthisis Pulmonalis	9	
Other Constitutional Diseases	6	19
Apoplexy	4	
Bright's Disease	2	

Bronchitis	5
Convulsions	2
Heart Disease	5
Liver Disease	1
Peritonitis	1
Pneumonia	1
Other Local Diseases	19—40
Old Age	2
Premature Birth	1
Other Developmental Diseases	5— 8
Accidental	7
Deaths from all Causes	102
Annual death rate per 1000	16.32
Deaths for corresponding week in 1888	107
Deaths for corresponding week in 1887	110

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 34 observers (embracing 30 counties) show the following diseases to prevail for the week ending Friday noon, October 4, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Bronchitis, acute	15	38
Diarrhœa	15	26
Tonsillitis	13	21
Intermittent Fever	12	28
Rheumatism (acute)	10	12
Typhoid Fever	9	16
Dysentery	7	11
Erysipelas	6	6
Remittent Fever	5	6
Pneumonia	5	5
Typho-Mal. Fever	4	5
Scarlet Fever	3	8
Cholera Morbus	3	3
Consumption (Pul.)	3	3
Diphtheria	2	4
Cholera Infantum	2	2
Whooping Cough	1	1
Pleurisy	0	0
Croup, membranous	0	0
Measles	0	0
Puerperal Fever	0	0
Cerebro-Spin. Men.	0	0

REMARKS.

Diphtheria reported by observers at Summerfield, and Louisville. Reported by health officers: Columbus, 17 cases, 4 deaths; Toledo, 13 cases, 4 deaths; Fostoria, 1 case, 3 deaths; Logan, 2 cases; Xenia, 6 cases, 1 death; Middletown, 7 cases, 1 death; Mansfield, 3 cases, 1 death.

Scarlet Fever reported by observers at Maineville, New Vienna, and Rocky River. Reported by health officers: Ironton, 1 case; Columbus, 1 case; Toledo, 3 cases; Fostoria, 3 cases; South Charleston, 1 case; Defiance, 2 cases; Norwalk, 1 case; Chillicothe, 3 cases.

Typhoid Fever reported by observers at West Liberty, Canal Dover, Mutual, Carrollton, Sandusky, East Cleveland, Sharonville, and Eaton. Reported by health officers: Findlay, 5 cases; Fostoria, 1 case; Chillicothe, 4 cases.

C. O. PROBST, M.D., Secretary.

SANDER & SONS' Eucalypti Extract (Eucalyptol). Apply to DR. SANDER, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Greifswald.

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

TERMS, $3.50 PER ANNUM IN ADVANCE.

☞ All letters and communications should be addressed to, and all checks, drafts and money orders made payable to

DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, October 12, 1889.

The Week.

SOUTH-WESTERN OHIO MEDICAL SOCIETY.

THE SOUTH-WESTERN OHIO DISTRICT MEDICAL SOCIETY held its first semi-annual meeting at the Burnet House, October 9 and 10, opening with an address of welcome on the part of the local profession by Dr. C. G. Comegys, in which he graphically depicted the usefulness of such an organization as this, and urged upon the members the great benefits that would inure to the profession and to the people by its members becoming more intimately connected with State affairs and public questions—an influence that is not, but should be exercised in this direction.

This was followed by a response from the President, Dr. W. A. Campbell, of Eaton, in which was pictured in glowing colors the brightness and value of the pages to be written by members of this association, and the great advantage to members of a common profession in adjoining counties becoming more intimately acquainted with each other.

Dr. J. C. Culbertson read a paper on medical societies and organization, in which was shown the power and influence for good that comes from a combination of numbers.

A paper on rhino-plasty, with report of a case, by Dr. George Goodhue, of Dayton, gave a brief history of the various operations for correcting nasal deformities. Photographs of his case indicated a success beyond description in any other manner. Dr. P. S. Conner paid quite a compliment to the author of the paper, and added very much to the interest of the occasion by showing to the members an original copy of Tagliocotia's work on surgery, published in A.D. 1593. The text is in Latin, and the illustrations are a credit to the engraver's art. The work is in a perfect state of preservation, and the printing is beautiful.

Dr. Geo. W. Ryan exhibited an interesting case of congenital luxation of the hip-joint.

Dr. A. B. Thrasher reported a case of cockle-bur which had been removed from the larynx. Giving his method of removal with Dr. Mackenzie's forceps, Dr. Max Thorner discussed the various methods adopted in such cases for removal of foreign bodies, narrating a similar case in his hands some years ago in which his efforts were crowned with success by using a sponge probang. The case was reported at the time in the LANCET-CLINIC.

A very valuable paper on the treatment of hemorrhoids and fistulæ was read by Dr. Longstreet Taylor and discussed at length by Dr. W. W. Dawson, both gentlemen agreeing in regard to the importance of a complete division of the sphincter ani muscles in the treatment of anal fissure. Dr. Dawson had had some unfortunate experience with the use of carbolic acid as a hypodermic injection for the cure of piles.

Dr. von Klein read a very interesting paper on affections of the nasal septum, for which relief was obtained by surgical means.

This was followed by a paper on the relation of ocular troubles to general diseases by Dr. Charles W. Dodd, of Cincinnati, and one on color-blindness and defective vision among railroad employes, by Dr. Ben. F. Clark, of Cincinnati. These papers were well received.

We have only space this week to note the remarkable success of the first meeting of this already vigorous Society, which starts off with nearly ninety active members in attendance on its first session, every one of whom was on the alert for every expression and ready to add his individual observations and experience.

Never before, in an editorial experience of sixteen years, have we had such a pressure on our pages for space for society transactions and papers. Every week we are printing extra pages of reading matter, and our only wish is that we could afford to print twice as much. There is an infusion of new life, new vigor, in all professional work, that compels even the sluggard to quicken his thoughts and paces, while the determined-to-get-there man is just going for everything within reach.

SOCIETY NOTICES.

ACADEMY OF MEDICINE.—

Monday evening, October 14, Dr. E. E. SATTLER will report a case of "Almost Complete Nasal Stenosis produced by the Use of the Galvano-Cautery."

CINCINNATI MEDICAL SOCIETY.—

October 15, DR. F. C. GORES, "Irritation of the Brain."

October 22, DR. THEO. BANGE, "Milk Inspection of Cincinnati, with Suggestions for Dairy Reform;" PROF. KARL LANGENBECK, "Milk Adulteration, and the Milk Supply of Cities."

A DECOCTION of quassia, to which a little borax and glycerine have been added, will remove lice and other parasites from the hair better and more quickly than any other known means.

DAIRY INSPECTION.

Recently the Cincinnati official Milk Inspector has shown a commendable degree of activity in looking after the sanitary condition of the dairy stables, where the cows that supply the city with milk are housed and fed.

His attention should be directed to the water-supply used for the cows. A majority of the dairies are located on farms north of the city, on what is known as the Millcreek water-shed. The creek proper has a great many feeders from springs and small brooks that carry the entire sewage of North Cincinnati—two starch factories, two large infirmaries, Longview Asylum, the Zoological Garden, and more than twenty incorporated villages; in fact, the main stream constitutes one great open trunk sewer that runs through the west part of the city, which in warm, dry weather emits a stench that is rank, and its foulness smells to Heaven; while every one of the little brooks are open branch sewers, that in many cases furnish the direct and only drink of the dairy cows. Ugh! While those that depend on wells for their water-supply must, in most cases, obtain only a dilute sewage-water, that is reeking with poison from the contaminated soil.

Diphtheria is quite prevalent, at which we are not surprised. A little longer continuance of dry weather and typhoid fever will prevail. Some unnecessary deaths will be noted as an indication of the inscrutable acts of Providence, while it is, in fact, the result of wilful wickedness in not using known methods of prophylaxis.

The city has levied and collected taxes to the amount of nearly a million dollars for the building of trunk sewers through the Millcreek district, and has about five hundred convicts in the Work-house that should be employed in digging the trenches. Not a dollar of this large sum is being expended for the purpose designed, or a man employed in that direction, while nearly every outlying suburb has recently been engaged in building sewers that empty into dairy pastures directly, or into small streams that flow through the fields where the cows have access. There is an inexcusable indifference to the existing conditions that is absolutely criminal. The city and village authorities being unable to agree in regard to the exact amount that each shall pay for this purpose, the State Legislature must come to the relief of the people and solve the vexed question.

In the meantime the City Health Officer, Milk Inspector and Board of Public Affairs must at once obtain the necessary information in order to make an intelligent statistical report to the Legislature.

MISCELLANY.

The History of Medicine. — The active workers who have their shoulders to the wheels of the triumphal car of modern medicine are as a rule too busy with the present and future of the art of healing to have much attention to spare for its past. Medical writers are rare and infrequent cultivators of historical research; their studies in that direction seldom extend beyond a dip into some warehouse of references like Ploucquet's "Literatura Medica Digesta" to procure the materials for a cheap display of erudition, or a hunt after evidence which shall demolish the priority of a rival worker. It is not only in this country that the subject has fallen into unmerited neglect. In France, Daremberg, Lorain, and Maurice Raynaud seem to have left no successors; and in Germany, where one might have looked for better things, the history of medicine has fallen out of the programme of University studies. Yet it is not so long ago that every German university had a special lecturer on the subject, but, as the chairs fell vacant, they have been left unfilled, till now there is but one professor of the history of medicine in the Fatherland, in the person of Dr. A. Hirsch, of Berlin. It will hardly be denied that a knowledge of the history of medical ideas is essential for the right comprehension of the present position and tendency of medical thought. It is gratifying, therefore, to note that the Prussian Minister of Education is making an attempt to revive the study in Germany. All professors henceforth to be appointed to the chair of hygiene in any university will be also expected to lecture on the history of medicine as a part of his regular duties. The intention of the new ordinance is admirable, but the association seems an odd one; for one would think, *a priori*, that it was precisely hygienists who had least to do with the history of medicine. Is it too much to expect that the subject will some day be taught in England as a desirable luxury at least, if not a necessity, of medical education? The College of Physicians would seem to be the fittest body to establish such a chair, but where could a competent teacher be found to fill it?—*British Med. Journal.*

A Case of Senile Dentition.—Dr. T. M. Greenwood, of Mineral Bluff, Ga., reports a very interesting case of senile dentition. Patient, female, aged seventy-eight years, mother of twenty-one children at full term. Had never taken a dose of medicine from a physician until June of this year, when Dr. Greenwood was called in and found her suffering with an attack of summer diarrhœa, which lasted for about two weeks. Three weeks thereafter she cut two middle upper incisors, then next two, and last two lower incisors. The gums are much swollen, and there is every indication that she will cut a full set of teeth.—*Atlanta Med. and Surgical Journal.*

Woman as a Lecturer.—Dr. Sophia Jex-Blake, of the Edinburgh School of Medicine for Women, has successfully passed all the examinations of the Edinburgh Extra-Mural School before a committee of the conjoint colleges of physicians and surgeons, and thus occupies the status of a lecturer on midwifery in the Extra-Mural School. It is believed to be the first instance of the admission of a woman lecturer on this branch in a public school.

The Lancet-Clinic and *Obstetric Gazette* to one address one year for $5.

The Acutely Ill.

When a patient is acutely ill, the digestive powers share in the general condition, and consequently the food supplied should be of the most easily assimilable character. The predigestion of starchy matters outside the body, as in Mellin's Food, is necessary, and the soluble carbohydrates of which this food consists, soluble because predigested, form the true food of the acutely ill.—J. Milner Fothergill, M.D., Edin.

A sample of Mellin's Food *will be sent to any physician, free of expense, upon application.*

Doliber-Goodale Co., Boston, Mass.

THE
CINCINNATI LANCET-CLINIC:
A WEEKLY JOURNAL OF
MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, October 19, 1889. *WHOLE VOLUME LXII.*

Original Articles.

ON FEVER.

A Paper read before the Cincinnati Medical Society, September 24, 1889.

By DAN MILLIKIN, M.D.,
Hamilton, Ohio,
Professor of Materia Medica in the Miami Medical College.

Mr. President and Gentlemen:

Having been honored by an invitation to address you on the subject of fever, I attack it first with a definition.

Fever is an abnormal elevation of bodily temperature.

This provokes an inquiry into the normal temperature which I regret to say I cannot make a profound one. The discussion is impossible for this hour. It is, moreover, an obscure and difficult subject, and I only permit myself to make a few observations to clear up the field in a slight degree.

It was a little more than a century ago that Lavoisier, who first came to a true knowledge of the nature of combustion, leaped to the conclusion that the heat of the body was generated in the lungs by a process precisely similar to the combustion of ordinary fuel in a stove. It was an error, though a natural one. Neither he nor his contemporaries knew of the rise of temperature which sometimes occurs after death has put an end to respiration, for this single fact, this post-mortem fever, would have checked the luxuriance of the generalization which led him into error. We know, now, that animal heat is generated not solely, nor chiefly by processes of oxidation in the lungs, but by many other vital processes. We know that the muscles, which constitute so large a portion of the body, generate heat when they perform work. The glands, also, warm the blood which courses through them when they are performing their functions. The liver especially, whose function is certainly not oxidation, greatly warms the blood which it deals with. Heat is generated everywhere in the body and by almost every vital process. Assimilation and dissimilation generate heat as a rule. Every metamorphosis generates heat, as a rule, whether it be constructive or destructive. Almost every chemical process carried on in the body, unless we except the solution of aliment, is one to develop heat.

All this you know, and I only reiterate this familiar doctrine to your ears in order that I may remind you that any one of these heat-producing processes, if exalted beyond the normal rate and unchecked by an increased waste of heat elsewhere, may produce fever. This is conceivable, at least.

Ordinarily and habitually and normally, heat is wasted from the body by radiation, by convection and by evaporation. Men very cunningly arrange clothing and houses and artificial heating apparatus in such a way as to bring the radiation and convection to a nearly constant line whatever be the weather. The other method of wasting heat, by the evaporation of water from the skin, we have no power to affect directly.

It is conceivable that fever may be caused by the mere fact that the power to waste heat is temporarily diminished. And it may be temporarily diminished from many causes. Fever itself breeds fever; it directly tends to dry the skin, check the waste of heat, and so force the bodily temperature constantly upward. In many of the exanthems we have good reason to believe that the skin, at a certain stage of the disease, is unable to bathe itself with water, and that the fever rises when that condition is established.

It appears, then, that there is need of a regulator of heat in the body. We cannot begin to think that the body heat, generated by so many functions, continually varying in their intensity, can maintain a constant rate or a constant level. Neither can we think that the rate at which heat is wasted will be constant. There must be, somewhere in the body, some apparatus which has the power to regulate the temperature, to correct increased thermogenesis by increased waste of heat, and anon to correct abnormal refrigeration by quickly increasing the thermo-genesis, or by diminishing the waste of heat from the surface of the body. And not only is there a need but the need is supplied. We have a thermostatic apparatus acting precisely like the thermostats which so nicely regulate the temperature of the incubators which have relieved the hens of their most grievous burdens, which have been applied to regulate the temperature of chambers used for bacteriological work, and which have even been applied to regulate the temperature of living rooms.

And this thermostatic apparatus in our bodies works so well that neither race nor climate can affect the bodily temperature by a fraction of a degree. Even highly artificial climates can scarcely affect it. In hot chambers or in cold, the body-heat remains approximately the same, and if by any means it is varied for a time, it is quickly brought again to the normal line. Even starving animals do not greatly vary from the normal temperature until death is actually at hand. So wonderful and prompt is the thermotaxic part of our wonderful machinery.

Now it is conceivable that fever may be caused by some derangement of the apparatus which regulates heat. Nay, it is more than conceivable; we have the cases occurring in practice and in the physiological laboratory. When an assault is made upon the great nerve centres of the body there is oftentimes such a profound alteration of the bodily temperature as to compel the idea that the heat-adjusting apparatus is a part of the nervous system. You remember Brown-Séquard's old experiment of dividing the cervical sympathetic of a rabbit and finding a very prompt rise of temperature on the mutilated side. Along with this increased heat went a dilatation of the capillaries and a greatly increased arterial supply. Upon this he concluded that the sympathetic system has centres and strands which hold the capillaries to something less than their normal calibre and incidentally regulate the temperature of the parts containing the capillaries. Further investigation has continually strengthened this belief. And it has also developed the truth that the sympathetic ganglia which regulate heat in this way owe allegiance in some unknown manner to higher centres in the brain and spinal cord. There is reason to belive that there is a positive heat-centre in the floor of the fourth ventricle near the point of the calamus scriptorius, and there is also authority for a negative or inhibitory centre either in the pons or just above it. If one of these centres be irritated, there is fever; if the other, there is a fall of temperature below the normal line.

So then, looking to the possible internal conditions of fever, we must say that we can conceive of a fever which is due to an exaltation of the heat production, of a fever which is due to a diminished waste of heat, and of a fever which is due to a lack of regulation between production and waste.

What has been said is as to the possible internal causes of fever within the body. What do we know of the foreign causes of fever?

Some years ago it was distinctly announced that the specific fevers, the fevers which had natural histories and definite natural courses to run, were caused by ferments in the blood. Underlying that pathology was the beautiful fancy that precisely as fermentation in a vinegar barrel or a brewery vat was a process of oxidation, breaking down complex molecules and so producing heat, so in these fevers, the whole mass of the blood was a fermenting mass, generating heat by the chemical process attending the fermentation, and of these chemical processes oxidation was the most important. Perhaps I state this doctrine more plainly and boldly than I should, but it was enunciated in the books of twenty and thirty years ago with clearness.

More recently it has been very distinctly announced that in the case of some of these fevers the analogy to fermentation is very close. The ferment in modern times almost ceases to be an hypothetical substance. Modern pathology declares that it has discovered the particular organism which in each sort of fever corresponds to the yeast plant of the vinegar barrel. The germ theory of disease has mightily prevailed, and the bacteriologists have enabled us to say in many cases that certain bacterial forms are invariably present in certain fevers. There is no question as to the contemporary occurrence of the bacteria and the fever; the only question is whether they stand in the relation of cause and effect. Three hypotheses must be admitted:

First—That, as the more enthusiastic of the bacteriologists are inclined to say, the bacteria cause the fevers.

Second—That they produce something which causes the fever.

Third—That they just simply find in fever what we may venture to call a congenial climate.

The bacterial doctrine is far in the ascendant at this time. It is very generally taught that certain fevers are caused by the very presence of bacteria, and this doctrine is not merely entertained as an useful hypothesis; it is enforced as veritable truth.

But surely there are fevers which have no such origin as this. What has sunstroke to do with bacteria? It comes on suddenly, oftentimes without time for the development of bacteria. In its intensity it transcends all other fevers. It may be said to be fever itself. It must be accounted for in some other way than by the development of living germs. It is due, apparently, to great external heat interfering with the refrigeration of the body at the surface, and to profound disturbance of the nervous system. It is not pretended that bacteria have anything to do with it. The very statement comes near to a reduction to the absurd.

Since we are pointing out a new error with regard to the essential nature of fever let us attend also to a very old one. It was plainly taught by Hippocrates, and by almost every writer since his time, that fever was a fire which actually consumed the tissues of the body. The moderns, who understand the nature of fire, agree substantially with the ancients on this head, though the ancients did not understand that fire was a phenomenon rather than a corporeal thing. And practice has gone along with theory on this head. The attempt has been made for many centuries to suppress fever, because fever was thought to be a fire wasting the tissues. The attempt was made by external refrigeration long before we had any antipyretic substances. The attempt was made to subdue fever by quinine, later by salicylic acid and its salts, and still more recently the effort has been faithfully and successfully made to quench fever upon the theory that it was a fire, by the use of the wonderful drugs of the coal tar series.

Where there is a fire there should be ashes, and the amount of ashes should, roughly at least, measure the amount of fire. So physiologists have long been looking to the excreta to find the ashes which should measure the waste which takes place in fever. Do the ashes appear? In some degree. Does the fuel disappear? In some degree, for witness the emaciation in fever patients. But not all of the fuel disappears, nor does it disappear in precise proportion to the amount of fever. And the excreta do not precisely account for the fever by showing the results of retrograde metamorphosis in proportion to the amount of fever. My attention has long since been called to the fact that a patient (let us say a consumptive) already much attenuated, may develop a fever of high degree and at the same time may develop such anorexia or dyspepsia as to forbid the putting food or fuel into the fire from the outside. Upon the theory that fever is solely, or chiefly, a fire consuming the tissues, the poor emaciated consumptive should be quickly consumed. Sometimes they are quickly consumed; sometimes they are even consumed more quickly than theory would expect. But, on the other hand, many patients seem to live long, continually parched with fever, without appreciable emaciation, nor take much food of the sort which our physiologies tell us is fuel. Such cases incline us to skepticism of the doctrine that the more fever, the more the body is consumed in its fire. It cannot be. The fact is that in such cases the fever is partly caused by a diminished waste of heat from the body. Exact experimental research on this subject would be desirable, but logic is logic; and the course of a few cases wherein we have a conjunction of high fever, low diet and well preserved flesh is sufficient to overthrow the whole doctrine. Fever certainly is not in all cases a fire feeding upon the tissues.

So far have I myself wandered from the impression that fever is a deadly and hence an important thing, that I have seriously asked myself whether fever should be treated at all. If you ask me the question I should say: *Certainly it should be treated.* If you ask me *when* I should say: *It should be treated whenever it appears to be doing great harm.* That is the test and the only test. To some degree fever may be a fire in this house of clay. Nay, it is. But this house of clay is of slow burning construction, and under those circumstances it is not good policy to call out the fire department hastily. It may happen, as it often happens in the little accidental fires in our dwellings, that the fire department is over-zealous to extinguish the incipient flame; it throws water very recklessly, and does far more harm by the repressive measures than the fire was like to do under non-official treatment. The fire department has dash and energy far in excess of its discretion and prudence. We may not rival it nor imitate it.

I reiterate and doubly commend the good rule to treat fever when it is doing harm, and in proportion to the harm that is being done.

Fever produces such intolerable headache and other aching of some adults that I think it is fair to moderate it merely to relieve pain. It is a part of our business to relieve pain. There are few who pretend that pain is beneficial; there are few to deny that it is depressing. I hold no theory with regard to fever that would forbid me to use the antipyretic remedies if necessary for the mitigation of temperature by way of relieving the accompanying headache, backache, and the aching in the bones.

I often fight the fever of little children not because it is fever, but because the nervous system of the particular patient in hand is so irritable that I dare not permit it to be excited by fever. I would not treat the fever for itself; I would treat it to avert a convulsion. Convulsions forestalled, I do not think it well to push the treatment farther to the point of interrupting the natural course of the disease in hand, nor to such a degree as to obscure the diagnosis of the case.

When fever causes wild delirium it should be combated, not because it is fever, but because it induces a troublesome and dangerous condition of the nervous system. The same may be said of sopor or coma.

We recognize, also, the fact that, in some cases of specific fever of high grade and long duration, there occurs a granular degeneration of the parenchyma of many glandular organs and even of the muscular tissue. There is also recognized an hyperplasia of the connective tissue under similar circumstances, and this may lead to the most damaging sclerotic changes in pulpy organs, the brain for example. In the heart's muscular fibre we have a change which is especially dangerous (Zenker's change), for it permanently impairs the fibres of that pre-eminently important muscle. It is a question whether the high temperature alone produces this alteration. It is probable that it does, because a patient may be very ill with a specific fever and suffer none of these degenerative processes if the temperature be not inordinately high.

For this reason, therefore, it seems to me to be good practice to beat down the temperature in the specific fevers if, for a long time, it rises above a moderate grade. This is recommended again not because the patient has a fever, but because he has such a fever as is liable to do him great harm.

We must recognize also the fact that there are grades of fever absolutely pernicious. We find such temperatures in tetanus, in sunstroke, and in some of the specific fevers, especially in scarlet fever. In these cases it is believed that the temperature reaches a point which the nerve cells of the brain, and perhaps other nervous structures cannot endure at all. This is very probable because this pernicious temperature lies about the point where the simple cells of the bacterial and bacillary organisms lose their vitality. There can be no question of the propriety of breaking down these pernicious temperatures by drugs. There is an actual emergency existing and the treatment must be decisive and prompt. It is a time for the greatest energy of the fire department.

But, dropping these pernicious temperatures for the time being, let us return to the discussion of antipyretic remedies.

The most valuable of all I take it is the direct abstraction of heat from the surface of the body. I have more than hinted my belief that many cases of fever are not caused by a great increase of heat-production, but by a diminished waste of heat from the surface. I am therefore quite consistent when I say that the most rational line of antipyretic treatment consists in the abstraction of heat from the surface of the body. It is by the evaporation of moisture from the skin that nature puts an end to the most serious fevers which end in a critical sweat. It is only when the evaporation of sweat is prevented or interfered with that thermic fever occurs. Blagden and his co-workers found that a temperature of 212° was easily borne if the conditions of evaporation were favorable and he endured 260.6° for eight minutes without the least discomfort, the conditions being favorable for the evaporation of moisture from the skin. A young woman endured a temperature of 325° for ten minutes under favorable conditions, and Chabert, the "Fire King," entered ovens at from 400° to 600°, and this startling performance of the theater is only up to the temperature habitually endured by the workmen in certain potteries. Similar temperatures have been maintained for the air breathed by consumptives in recent attempts to roast the bacillus tuberculosis, and it is not found that the temperature of these patients is notably increased.

Ordinary cutaneous transpiration is somewhere about two pounds per diem, and, as has often been noted in men doing great work, it may be, under exceptional circumstances, as much as four pounds per hour. If the patient is surrounded by a dense and moist atmosphere, at or near the sea level, an atmosphere such as prevails the year round in the stoke-holes of the ocean steamers, an atmosphere such as prevails in mid-summer in our great central corn-growing valleys, then this enormous loss of water for purposes of refrigeration is arrested, and a thermic fever or some form of thermic exhaustion is established. Refrigeration by evaporation from the surface of the body is simply carrying on nature's neglected work until there comes a good hour.

No patient with fever should be covered with a superfluous ounce of quilts or comforts. If the extremities are warm the patient should be permitted to uncover himself to a great degree. The attendants should be instructed against the bogy of taking cold.

Affusion with tepid water meets many cases of fever. It is not sought to cool the patient by the application of the water but by its evaporation.

By affusion or sprinkling with cool or cold water a greater degree of refrigeration may be accomplished, not alone by the evaporation of the water, but by the direct abstraction of heat from the hot patient into the cold liquid.

I know of no physical reason why a patient should ever be lifted into a cool bath or into a warm bath that is to be cooled. Speaking as a physicist I say boldly that the extremest degree of refrigeration may by attained by sprinkling the patient with cold water as he lies on a rubber sheet; speaking as a physician I say with equal boldness that it is improper to lift a patient from his bed and submerge him in a liquid as heavy as water, altering rudely and profoundly all conditions of circulation and of respiration.

Of the older antipyretic drugs I could never speak with any respect. Aconite, veratrum, and the nauseants I have regarded as almost deadly in antipyretic doses in severe and debilitating fevers. I used quinine faithfully in my early practice in the days when I fought every fever and used the thermometer on almost every patient. I could never see its antipyretic effect short of toxic doses.

Then came salicylic acid and its salts. They were the only drugs which up to the time of their advent had any respectable power to relieve fever without actively poisoning the patient. But still they were so feeble as antipyretics that they were really of little avail.

Then came kairin and chinolin and that astonishing drug, antipyrin, cursed with a patent right, but of inestimable value when not abused. We own that it is dangerous, but we propose to use it in large doses only in cases where the fever is itself a source of danger.

In its train comes acetanilide, which has happily lost its patent right name and is cheap.

Last of all we have phenacetene, which I think is as safe as acetanilide, and much more safe than antipyrin, is tasteless, and need be administered in comparatively small dose. Antipyrin, acetanilide and phenacetene are all members of the coal-tar group of antipyretics, as they are vulgarly called.

I think that it is not extravagant to say that these coal-tar antipyretics, closely related to aniline in their chemical relations, are the first drugs introduced in the pharmacopœia with pre-eminent power to reduce the temperature of the body. Other drugs have this power in some degree, but these alone have the power in pre-eminent degree.

How do the great antipyretics of this group act? We use them in a very blind way in the present state of our knowledge. We simply guess that twenty grains of acetanilide is a dose which has power to diminish the rate of oxidation of the blood in the lungs and its de-oxidation in the tissues. We infer this because the patient becomes blue, and we have reason to believe that the hæmoglobin is actually poisoned by the drug. Beyond this we have little knowledge. We do not know what other tissue changes are inhibited by the drug, nor do we know precisely in what way it operates differently from other members of the same group. We note that it has greater power than some of them to cause the skin to be bathed in sweat and the patient's surface to be refrigerated by evaporation, but that is all.

Some day we shall do better; but, until our knowledge is much more precise we must admit that we cool our patients with these drugs only by checking vital processes. That is to say, we depress temperature by threatening life. So far does this poisoning go that the blood-cells themselves have their important function interfered with to some degree, and even gland-cells feel the toxic influence and cease to perform their excrementitious processes.

Therefore I repeat that we pay well for all the antipyresis accomplished by these drugs, just as we pay full price for all the ease and sleep obtained from opium.

[For discussion see page 442].

THE ratio of illegitimate births in the various countries of Europe, is, according to the last reports, as follows: Out of every hundred births 7 were illegitimate amongst the Spanish, 11 amongst the Italians, 16 amongst the English, and 24 amongst the Germans. In Paris, however the illegitimate births reached 38 amongst people of French nativity.

DR. STERNBERG, of the United States Army, accompanies the excursionists of the Congress of American Nations, in the capacity of surgeon. He was selected by the Secretary of War for this duty because of his familiarity with the Spanish language and the Spanish-American people.

POINTS IN THE RIGHT DIRECTION.

A Paper read before the Southwestern Ohio Medical Association at Cincinnati, October 10, 1889,

By H. M. BROWN, M. D.,
Hillsboro, O.

I have not brought these observations before you as being entirely original, but to impress upon the profession at large the incalculable value of different semiæ as observed by Fothergill and others, together with a few hitherto unpublished trustworthy signs that have been observed sufficiently long by me to convince me of their constancy.

How easy it is to diagnose many conditions without a long, horrifying precisive examination, which in some nervous patients creates such consternation as to handicap the well-doing of the case for days to come.

Each disease, I believe, could be semiologically classified provided the proper kind of patient and careful observations were made with that end in view; and the doctor who is skilful in signs possesses such an advantage over the one who does not make use of such means as cannot be appreciated until such methods are conscientiously studied and put into practice.

Without further prelude I shall proceed to point out signs which, having picked from the incalculable number and observed for long periods, I am prepared to testify, are of vast importance in the aiding of diagnosis, and in some instances are absolutely pathognomonic of the disease, the indication for which they serve as semiæ. It is so easy and almost a pleasure to be able to say to yourself upon entering the room of a sick child, "The patient evidently has syphilis and will do well on mercury." Your conclusion being correctly arrived at by reason of the following signs: emaciation, weakness, bad color, poor digestion. Thus far you have nothing more than might be the result of any other wasting disease, but in addition to that you see a scar or two upon each corner of the mouth, or a ringworm on the back of the neck, which would justify you in your conclusion; but when you have a peculiar cough, always recognized when once heard, coupled with a peculiar expression of the countenance equally distinct, you are in no more doubt, and your diagnosis is always correct, no matter what the lineage may be. A notch in the center of the incisor teeth of the permanent set, like the serrations of a saw, is likewise pathognomonic of congenital syphilis.

A patient under treatment for bronchitis who sees black stars in front of the eyes and swollen lower eyelids in the morning, barring the probable ingestion of arsenic, is strong presumptive evidence that kidney complications are at hand.

When called to see a patient with a disease of considerable duration, and find him sitting up with clothes loosened and shoes untied, presenting a complexion which is waxen, how easy it is to convince him that you are a man who knows his business by asking him a few shrewd questions in the direction of heart and kidneys.

And every practitioner knows the position of the head and open mouth of the child which enables him so correctly to predict the presence of enlarged tonsils. A diagnosis that can be made unerringly in every case.

The raised shoulders, anxious expression, and distress in breathing that belong to emphysematous lungs cannot be confounded with asthma, bronchitis, nor any other lung malady by those who have taken the pains to observe closely those cases.

Tea-drinking women are usually frail and weak and are liable to break down immediately upon the delay of a few minutes of their accustomed meal with which they drink tea to excess. General tremulousness will almost always accompany their frailty, and is promptly relieved by the ingestion of their meal.

We have all seen the peculiar expression of the face in the third stage of labor, in which the upper lip is raised and the front teeth are exposed, a condition never forgotten if once carefully noted. That same expression is always present in severe inflammatory diseases below the diaphragm, and has been appropriately called the abdominal expression of the face, and is always accompanied with the abominal pulse, which is peculiar in that it is short, quick, and blunt. Similar to what is designated as the short pulse is aortic regurgitation, save that it is a little more wiry. Those two signs—namely, the abdominal expression of the face and the abdominal pulse—are all anyone needs in the diagnosis of peritonitis, without ever having asked the patient a question.

Then there is the pallor of the face, with the hectic red upon the cheeks, together with the quivering nostrils and quick, weak pulse, which tells more unmistably than the stethoscope or hammer that the great destroyer of the race, consumption, has hoisted her bloody flag of no surrender. How foolish it is to make great displays with instruments of precision to scare and annoy the patients in the face of such unequivocal signs as the above.

Very long and bushy eyelashes are fair indications of struma, and such patients will die easy in the face of any serious disease, especially if that sign is accompanied by a fair skin.

Dark pigment deposit inside the lower eyelid in some women is the first objective indication of pregnancy; and the swelling of the eyelids in the morning which goes away at night is frequently the first sign of chronic Bright's disease. In Bright's disease the eyeballs are pearly white; in biliousness, yellow; in alcoholism, congested.

In persons of illicit habits, they are unsteady and downcast.

Persistent contraction of the left pupil is frequently an indication of aneurism at the origin of the left subclavian artery.

In brain diseases of children we frequently have an internal squint of longer or shorter duration; but however short it may be, I have never seen a patient recover when well-marked. Persistent retraction of the belly is another symptom that, in my experience, is a very bad and almost certainly fatal omen in any case of brain disease. Pain in any one part of the head, circumscribed and constant, is almost a sure indication of brain tumor.

If a patient applies to me for treatment who has suffered from long-continued headache, the cause of which may be never so obscure, and although she may enjoy a reputation for chastity fitting the priestly holiness, if I find marked tenderness upon tapping the breast bone I am very confident of a cure in the administration of pot. iodide; or if ringworm ever comes on the back of that individual's neck, you can administer the same treatment as expectantly as in the former case.

It has been my universal experience that in pulmonary trouble, however promising the case may be and no matter how fast the treatment, change of climate., etc., etc., seems to be improving the patient, if fistula ano exists, he will soon succumb to the disease, and the treatment of the local trouble is of no avail.

While it has never been so claimed by any authority to my knowledge, my observations have taught me that in cases who present scheloid tumor of the breast for examination, you may with certainty look for scrofulous or tuberculous family history.

On entering the room of a very ill patient, if you observe that the individual is very still, with fixed position of the head, especially if the chin be elevated a little, should the legs be moving under the covers from side to side and the knees moving slightly up and down, just that certain you have before you a case of headache of severe nervous type. That sign is so certain that you would be justified in asking as your first question, "When did your head begin to ache?"

One of the strong presumptive signs of over venereal indulgence is the taking frequently a long breath and seeming never to be satisfied as to the amount of oxygen he obtained, by a patient who has no brain disease or indigestion to explain the difficulty. Absence from sexual indulgence in such cases will usually perform a cure.

It will generally be found as a cause of headache in school children of healthy parentage, that if they do not have errors of vision they are the possessors of large and hyperæmic tonsils preventing the free return of blood from the brain. A cure can quickly be made by shaving off about half of each gland with a tonsilotome.

The slow, steady, and deliberate gait, together with absence of muscular resiliency, in an elderly person of previous vigor and activity, peals forth in almost certain tones the dreaded information that valvular disease has come upon him, and his life is only a matter of circumstance; for the illustrious Jno. Hunter, who suffered from that disease, died at the hands of an impudent lawyer who sought to aggravate him upon the witness stand. Of recent date I have made observations upon many patients suffering from heart disease, and have become convinced that an individual who has spread over the front of the chest a number of small red pimply angeomitous elevations is almost certainly a victim of some kind of cardiac inefficiency.

It is no longer a question of doubt that pregnancy can frequently be diagnosed in the very early stage by the soft velvety touch imparted to the examiner's finger upon the lining membrane of the vagina and os uteri.

Sudden carelessness in dress and filthiness in persons previously neat and cleanly are fair signs of mental failure.

If prompt care and devoted pains be taken in the observation of each case of sickness, in lieu of the lamentable routine carelessness bred of long continued and busy practice, the opprobria of the medical art—viz., mistakes in diagnosis—would not so frequently occur; and the shrewd, expert quack diagnostician would cease to have such ascendancy over the legitimate doctor. It is not claimed that signs are all that are needed in the making of a diagnosis, but all will admit they serve a splendid purpose in furnishing pointers in the right direction.

THE INFECTIVE PERIOD IN CONTAGIOUS DISEASES.—In the *Glasgow Medical Journal*, Dr. James Finlayson contributes an article in which he has collected and tabulated the views of recent authorities on the infective and incubation period in contagious diseases. The author has drawn up three tables, one showing the various views of well-known authors as to the infective period, another showing the period of incubation, and a third showing the period of quarantine necessary to enforce in cases where the patient has been exposed to infection, before they should be allowed to be considered safe to mix with others. Some such rules are also required as to the time when it is safe to allow healthy children to return to school, if they have brothers or sisters suffering at home from infectious diseases, especially if they themselves have once had the disease. The infective period for scarlet fever is from seven to eight weeks; measles, three to four weeks; rötheln rather less; mumps varies from two to four weeks, and whooping-cough is usually put down to eight weeks or more. The paper is a veay instructive one, and every general practitioner would do well to keep a copy of it always ready for reference.—*Med. Record.*

INTUBATION FOR DIPHTHERITIC LARYNGITIS.

WITH A REPORT OF EIGHT CASES.

A Paper read before the South-Western Ohio Medical Society, at Cincinnati, October 9, 1889,

By J. AMBROSE JOHNSTON, M.D., Cincinnati.

The indications for intubation for diphtheritic croup are the same as for tracheotomy. Whenever the patient's strength is taxed by difficulty of respiration, indicated by stridulous breathing, restlessness and great recession of the soft parts of the thorax, the time has come to intubate.

Intubation does not call for anæsthesia, but tracheotomy generally does, with all its attendant risks.

Intubation requires no cutting, and therefore parents are less likely to object to the operation at a time when it is imperatively demanded. Even if the per cent. of mortality were several per cent. greater than that of tracheotomy, and the parents knew it, they would be very apt to want to try intubation first. In tracheotomy the simple fact that "the throat is cut" withholds the consent of parents until the patient is almost dead, or after irreparable damage has been done to the lungs.

Intubation overcomes the stenosis as thoroughly as tracheotomy, and the tube holds the false membrane in the larynx in place until it softens and is thrown off in small pieces. The pressure of the tube also causes early disappearance of the membrane from the chink of the glottis.

Hemorrhage is one of the most frequent accidents that complicate tracheotomy. The apparently narrow escapes from death by hemorrhage have caused the operation to be discountenanced by many surgeons. Besides hemorrhage, ulceration of the trachea, emphysema and mediastinal abscess from tracheotomy are results that never attend intubation.

Any one with ordinary skill can intubate, but, of course, not with the gentleness and quickness of one who has had experience. Tracheotomy requires skill and experience that is not easily attained by the most of us. An able writer on tracheotomy in the "Reference Handbook of the Medical Sciences" says: "Tracheotomy, while often a simple procedure, at times develops conditions that tax to the utmost the coolness, adroitness and command of resources of the most experienced surgeon."

Intubation is the work of but a few seconds, and a child in extremis may be snatched from the jaws of death by the hasty introduction of a tube; while, on the other hand, tracheotomy often requires a much longer time, and under similar circumstances a child may perish before the hemorrhage that is apt to occur from a rapid operation can be controlled, the trachea opened and the canula inserted.

Intubation calls for no skilled assistants. My first case was operated upon with no aid but that of the child's mother and a neighboring woman. Tracheotomy calls for one or two skilled assistants to give anæsthetics, etc.

Expulsion of the intubation-tube occasionally occurs from coughing, but, as a rule, does no harm before the physician can be called and the tube replaced. Three of my cases coughed their tubes out, and in one the tube was not replaced until two days after, when the gradually increasing dyspnœa demanded the return. If the tube becomes occluded by a piece of membrane—a rare accident—it generally is forced out, thus giving relief.

The pushing down of membrane before an intubation-tube rarely happens. This occurred three times only in O'Dwyer's one hundred reported cases. In his first case of this accident, the tube was quickly removed by the attached string, and a cast of the trachea was immediately thrown out; the obstruction soon returning, the tube was reinserted, with marked relief. Next day the child died, and the autopsy showed the trachea and bronchial tubes lined with pseudo-membrane. In his second case respiration ceased, but on the introduction of a short tube, passing only through the larynx, no further trouble was experienced. In his third case neither long nor short tubes gave relief. Tracheotomy was performed but gave no relief, and the child died on the table. The autopsy showed a membrane in the larynx, trachea, and as far as the third and fourth divisions of the bronchi.

It is very seldom that intubation-tubes become stopped up by secretion, but tracheotomy-tubes become obstructed and require the nurse to be constantly cleaning them.

The intubation-tube can, as a rule, be dispensed with in about five or six days, and recovery is rapid. On the other hand, although tracheotomy-tubes may be taken out after one day, yet the majority require to remain as long as five or six, many eight, ten or fifteen days, and some months and years, to the great annoyance of the operator.

The delays of recovery after tracheotomy are due to adhesion of opposing surfaces of the vocal cords, granulations about the wound, or retention of membrane in the larynx. Such events are not experienced in intubation.

Most intubation cases swallow fairly well, but occasionally we must resort to rectal alimentation, and if this is not sufficient to support life for five or six days, a tube can be passed through the nose or mouth into the œsophagus, and milk and egg administered two or three times daily. Thirst can be quenched with small pieces of ice, which are readily swallowed.

Intubation has been charged with causing Schluck-pneumonia, but Dr. Wm. P. Northup, of New York, in a report, at the Ninth International Medical, Congress of 116 autopsies after intubation, found that death was caused by extension of pseudo-membrane to the bronchi and pneumonia. He also found no evidence that milk or other foreign material found its way into the lungs. The pneumonia was broncho-pneumonia, and not Schluck-pneumonia.

O'Dwyer says, "That while using tubes with very small heads, they would slip below the vocal cords, but were always held at this point on account of the anatomical fact that the infra-glottic division of the larynx is smaller than the trachea, especially so in children. In the healthy larynx it is not difficult, even with the large-headed tubes now used, to push them through the chink of the glottis, but it would be exceedingly difficult to force them past the cricoid cartilage into the trachea."

A few physicians can hardly credit the great recovery per cent. in the experience of some with intubation. They believe that we can scarcely have fifty or sixty per cent. recoveries from diphtheria when the palate, tonsils and posterior nares are involved, with enlarged glands and pronounced septicæmia, without croupous complications; and therefore we ought not to have any higher recovery per cent. for intubation. They forget that we have all degrees of constitutional severity in diphtheria, and that those fatal cases, in which there are no laryngeal complications, are severe constitutionally; and that, on the other hand, many of those cases in which the larynx is compromised are constitutionally mild, and are only rendered serious by the deposit occurring at the narrowest part of the respiratory tract. The deposit being overcome by mechanical means, it leaves the patient very often in no serious state.

Four operators with the tubes in this city have had results with them that no four of our skilled tracheotomists can surpass. Dr. Shaw has had 27 cases, Dr. Eichberg 35 cases, Dr. DeWitt 7 cases, and myself 8 cases. Collectively these 77 cases give a general average of 40+ per cent. recoveries.

Tracheotomy for croup in this city does not give so favorable a showing. Three gentlemen who are connected with our hospitals gave me their results with tracheotomy. One had 18 cases and 4 recoveries, another 13 cases and 1 recovery, another several cases and no recovery. Here we have three of our best surgeons, who have been practicing upwards of fifteen years or longer, reporting five recoveries from tracheotomy in all that time, while four gentlemen who have been using intubation have saved thirty-one cases in the last two years.

Dr. F. E. Waxham, of Chicago, has collected 1,072 cases of intubation, performed in various parts of the United States, with 26.77 per cent. recoveries. In 661 cases the ages were recorded, and were as follows:

Patients.	Age.	Recoveries.	Per cent.
31	under 1 year	5	16.12
97	" 1 "	15	15.46
149	" 2 years	29	19.46
140	" 3 "	42	30.00
98	" 4 "	32	32.65
56	" 5 "	19	33.92
27	" 6 "	10	37.03
32	" 7 "	16	50.00
12	" 8 "	5	41.66
10	" 9 "	5	50.00
2	" 10 "	1	50.00
5	" 11 "	2	40.00
2	" 14 "	0	00.00

Total: 661 patients, with 181 recoveries, or an average of 27.38 per cent.

This average per cent. compares favorably with the following: Dr. J. Solis Cohen, in his "Essay on Croup in its Relations to Tracheotomy," gives the statistics for tracheotomy collected from 42 operators in the chief cities of the country; collectively they had 325 cases and 84 recoveries, giving 25+ per cent. recoveries.

From Dr. J. Solis Cohen's essay on croup the following is also taken:

From an examination of the records of a period of ten years, comprising 1,300 croups, Bourdillat found the average recovery after tracheotomy had been as follows:

Under 2 years, ...	3 per cent.
At 2 years, ...	12 "
From 2½ to 3 years, . .	17 "
" 3½ to 4 "	30 "
" 4½ to 5 " . . .	35 "
" 5½ to 6 "	38 "
Above 6 years, . , .	41 "

Comparing these per cents with those of Dr. F. E. Waxham, we see that in children under two years of age intubation has the advantage by far, the per cent. of recoveries being fourteen over that of tracheotomy; and from two to three years of age the per cent. is about fifteen over tracheotomy. For older children the per cent. is about the same in one operation as the other.

Appended is the history of eight intubated cases, illustrating the work of a general practitioner in whom there is no great skill, and who has done no intralaryngeal work outside of intubating.

CASE I.

Jones, æt. 5 years. On January 28, 1889, I first saw the patient, and found her suffering from croup. The difficulty in breathing gradually increased, and the recession of the soft parts of the thorax became more marked. January 29, in the evening, when the child was semi-comatose, I introduced a tube, giving immediate relief. The mother and a neighboring woman were my assistants. After six days the tube was withdrawn, and the child recovered rapidly. Her younger sister at the same time had nasal diphtheria.

CASE II.

Julius G., æt. 3½ years. I saw him on the morning of June 11, 1889. He was recovering from an attack of measles. Symptoms of croup were manifested, which increased in severity until next day at noon, when Dr. E. G. Zinke saw the case in consultation. There was a slight deposit on the tonsil, and the difficulty in breathing was great. I inserted a tube suitable to the age, and relief was instantly obtained. We saw the boy again at 5 p.m., and found him breathing with great difficulty. On examining the larynx, to my surprise the tube was gone. It was not in the bed, and confident that it was not in the trachea, I took it for granted that it was in the stomach. I then passed in the next size larger tube, and relief was immediate. The use of this larger tube prevented the epiglottis from exercising its function perfectly, and the child could swallow nothing but small pieces of ice. He was sustained very well by rectal injecjections of milk and egg. In five and a half days the tube was removed, and the patient recovered. The tube that was swallowed was passed ten days after.

CASE III.

Jessie P., æt. 6½ years. Courtesy of Dr. Abbott. On June 26, 1889, he had measles, and at the same time diphtheritic membrane in both nasal cavities. June 28, he began to have a metallic cough and some inconvenience in breathing, which grew worse and worse. On June 30, the recession of the soft parts of the chest being to the extreme, I intubated, with immediate relief. The patient was having a temperature ranging from 103° to 105°. He died fifty-one hours after the operation from diphtheritic toxæmia. After intubating he had no further difficulty in breathing. He had a brother sick at the same time with both nostrils occluded by membrane.

CASE IV.

John P. B., æt. 4½ years. July 2, 1889, Dr. Ratterman saw the case and diagnosed it diphtheritic laryngitis. The case grew gradually worse until the 4th of July, when he had Dr. E. G. Zinke to see it with him. About 2 p.m. I saw the case with them. A tube was introduced with immediate relief. In six days the tube was withdrawn, and the child recovered.

CASE V.

Max S., æt. 5 years. On July 6, 1889, he had a cough, and on July 7 had some difficulty in breathing. July 8, the difficulty in breathing kept increasing, and at 3 p.m. I intubated in the presence of Drs. Zinke and Tomlinson, giving immediate relief. July 12, four days after intubating, the tube was coughed out. The breathing being easy, the tube was not replaced.

July 12, the cough returned, and the difficulty in breathing increased until it was necessary to reintroduce the tube on July 15. All went well, and the tube was extracted July 20. After the boy got well his sister was taken with a severe pharyngeal diphtheria.

CASE VI.

Anna M., æt. 2 years. She was under the care of Dr. Ratterman, and had been having pharyngeal diphtheria for ten days previous to the time I saw her. On July 21, I first saw the patient with Dr. Ratterman. The tonsils, palate and pharynx were covered with membrane, and she had dyspnœa and extreme recession of the soft parts of the chest. A tube was introduced, with instant relief of the difficult breathing. On July 24, at 3 p.m., again the difficulty in breathing began, and the tube was removed, giving the child relief until 8 p.m., when the dyspnœa came on again. The tube was reintroduced, giving complete relief. On the 25th, at 3 p.m., the child died from exhaustion.

CASE VII.

Lizzie B., æt. 3 years. She was seen by Dr. N. C. Abbott on the morning of October 4, 1889. I saw her in the afternoon in consultation, and found the tonsils, palate and nasal cavities lined with diphtheritic membrane; also stridulous breathing and marked recession of the soft parts of the thorax. The temperature was subnormal. I intubated, giving relief. October 9, the pseudo-membrane was rapidly thrown off from the palate, tonsils and nasal cavities, until to-day there is but a small patch on the right tonsil. The child is recovering rapidly, and to-morrow I shall remove the tube. October 10, the tube was removed.

CASE VIII.

Clara R., æt. 3 years. She was seen in the morning of October 5, 1889, by Dr. E. G. Zinke. In the afternoon the Doctor took me in to see the case. She had a diphtheritic deposit on one tonsil, and great difficulty in breathing and recession of the soft parts of the chest. I intubated, giving relief. The child being rather small for her age, I used a tube that is generally used for two-year-old children. October 7, at 2 a.m., she coughed the tube out, and the parents did not inform us of it until 6 a.m., when the tube was replaced. In the afternoon, at 5 p.m., there was some difficulty in breathing. I withdrew the tube and inserted a size larger, which gave some relief. The child died at 9 p.m., probably from extension downwards of the membrane.

Intubation has met with opposition. Results speak for it, and it needs no eloquence to support its claims. To O'Dwyer we owe unbounded praise for his genius in giving to us an operation and perfected instruments that merit the admiration of parents whose little ones have been benefited thereby.

BACILLI ON A BALD HEAD.—Dr. Saymonne claims to have isolated a bacillus, called by him "bacillus crinivorax," which is the cause of alopecia. It is, he says, found only on the scalp of man; other hirsute parts of the body, and the fur of animals being free from it. The bacilli invade the hair-follicles and make the hair very brittle, so that they break off to the skin. Then the roots themselves are attacked. If the microbes can be destroyed early in the disease, the vitality of the hairs may be preserved, but after the follicles are invaded and all their structures injured the baldness is incurable. The following is Dr. Saymonne's remedy to prevent baldness: Ten parts of crude cod-liver oil, ten parts of the expressed juice of onions, and five parts of mucilage or the yolk of an egg, are thoroughly shaken together and the mixture applied to the scalp, and well rubbed in, once a week. This, he asserts, will certainly bring back the hair if the roots are not already destroyed, but the application of the remedy must be very distressing to the patient's friends and neighbors.—*Med. Record.*

ANOTHER USE FOR BENZOL.—This liquid is a great solvent of oils and grease. It will clean off the old grease that has been used to lubricate a microscope joint, and leave the surface bright and clean for a fresh application of the lubricant. Benzol is very convenient for cleaning the spindle to a turn-table when the table does not run smoothly.

COCAINE and borax are incompatible, the alkaloid being precipitated as insoluble borax. The difficulty does not attach to boric acid and cocaine.

ABDOMINAL SECTION.

A Paper read at the semi-annual meeting of the South-Western Ohio Medical Society, at Cincinnati, October 9 and 10, 1889,

By RUFUS B. HALL, M.D.,
Professor of Gynecology, Cincinnati Polyclinic; Clinical Lecturer on Gynecology, Miami Medical College; Fellow of the British Gynecological Society of London, etc.

The history of the cases of abdominal section in this paper are of such interest and contain so many points that might be discussed with profit, and, coming under my care, as they did, at about the same time, I have selected them as a basis for a few remarks. There were so many difficulties to be overcome at the time of the operation in each case, that I think they are of sufficient importance to warrant their report in full, and of sufficient interest to claim your attention for a few moments. The first was a double pyosalpinx of some nine months' duration. The second was an ovarian tumor weighing twenty-four pounds, with unusually firm and extensive adhesions.

CASE I.

The first case was a woman 31 years of age, with the following history:

Married nine years ago, but separated from her husband in a few weeks after marriage because he had infected her with gonorrhœa. She recovered from the acute symptoms and profuse vaginal discharge in a few months. Since that time she has earned her living as a domestic. After recovering from the gonorrhæa, until nine months ago, she suffered only a few days at her menstrual periods, which she did not do before she contracted gonorrhœa. Although she suffered considerable pain during each menstrual period, she rarely called a physician to treat her and was subjected to no special treatment until nine months ago, at which time she had a sharp attack of peritonitis, which confined her to her bed for four or five weeks. During and since that attack she has been under medical care constantly. Her first physician is engaged in general practice, and is one of prominence in the profession. After the acute symptoms had subsided he made a thorough examination and pronounced the case one of fibroid tumor of the uterus, and said that in his opinion, that was the cause of her recent attack of inflammation. He treated her for four months; during that time he made three or four vaginal examinations, and each time said that the case was undoubtedly one of fibroid, and treated her accordingly. All of that time she was unable to do the least work, and suffered constant abdominal and pelvic pain, which continually grew worse. At the end of four months, finding that her condition was growing worse, she left this physician and went to another one of prominence. He made a vaginal examination and said that he found a fibroid tumor in the posterior wall of the uterus, and advised electricity as a part of the treatment, which was duly and heroically applied twice a week for the following five months. When she applied to the second physician her general health was very much depreciated, which he tried to improve in the most approved manner — by tonics, massage, exercise, etc.—but all to no good purpose; she grew worse each week. During his treatment she had three or four attacks of inflammation, which confined her to bed for ten or twelve days during each attack. Not to be daunted, however, he continued the use of the electricity more energetically than before. At the end of five months' of his treatment she found herself in the very embarrassing position of one without money or friends and too sick to work. When she first took sick she had more than two hundred dollars in money, but now she was without a penny, and for that reason she was compelled to ask for charity, and applied for treatment at the Cincinnati Polyclinic, June 6, 1889. This was ten days before the operation was performed, she coming directly from the physician's office to a free clinic, as she had no money to pay for his services or to buy the medicine that she must have to relieve the pain. Her condition at that time was a deplorable one. She required morphine every three or four hours to make her condition tolerable. She had lost about thirty-five pounds in weight in the past few months. She suffered so much pain that she had secured but little sleep for a number of weeks on that account.

A vaginal examination revealed a semi-fluctuating mass in Douglas' cul-de-sac, extending to the right side of the pelvis, fully as large as the closed hand, with a small mass upon the left side high up. The uterus was displaced to the left and in front of the largest swelling measured two and three-fourths inches in depth, and was fixed by adhesions.

With the patient's history and the conditions present, there could be no doubt in my mind that the case was one of pyosalpinx, and I so stated, and advised an immediate operation for the removal of the offending tubes. But this so surprised her that she declined to have an operation. I refused to treat her unless she would be treated the way I proposed. She left, saying that if she decided to have the operation she would return, which she did in a week.

June 17, 1889, three days after her return, the operation was made. When the abdominal cavity was opened the pelvis was found completely roofed over by adherent coils of intestine. After separating the intestinal adhesions, which were not firm, a mass—which proved to be the right tube—containing a large quantity of pus was found occupying the space behind the uterus, and was removed with some difficulty. The left tube was also distended with pus, and was removed. The patient made a complete recovery, and went home on the twenty-fourth day after the operation.

CASE II.

The second case was a married woman, 40 years of age; one child, 18 years old. Has always enjoyed good health previous to the present illness, which commenced twenty months ago. At that time she noticed for the first time that her abdomen was somewhat enlarged. She at once consulted a physician, who diagnosed her disease as dropsy, and ordered as part of the treatment an abdominal bandage to be worn as tightly as she could possibly stand it. In the course of eight or ten days after the bandage was applied she had an attack of abdominal inflammation, and was very ill for about two weeks, from which she never regained her usual health. After this she required the attention of her physician at short intervals of time, varying from one to three weeks, for the following six months. Then she had a second attack of abdominal inflammation, which confined her to her bed for fully five weeks. Her abdomen continued to enlarge, yet this physician still clung to his former opinion—that the woman had abdominal dropsy. After this second attack of inflammation she was never free from pain one hour at a time until after the operation was made. After her second serious illness her general health began to suffer, and she was confined to her bed fully half of the time until December, 1888, when she had a third attack of abdominal inflammation. The family now called another physician, who must have overlooked the true cause of these attacks of inflammation, as he said that he could remove the abdominal enlargement by the administration of drugs. She was confined to her bed for many weeks from this attack, and came very near losing her life. She was able to be up but a few weeks until she had a fourth attack of inflammation; this occurred in February, 1889, and confined her to her bed almost constantly until the operation was made. On the 18th of June a consultation was called and the existence of the tumor was recognized by the consulting physicians, who advised an immediate operation.

I saw the case on June 19, and urged an immediate operation, which was done at my "Home" on June 24, 1889. The woman was emaciated to an extreme degree, weighing 107 pounds before the operation, which, by deducting the weight of the tumor, 24 pounds, would make her weight 83 pounds; her former weight was 135 pounds. The woman had constant fever, her morning temperature ranging from 100° to 101°, with an evening temperature of 101° to 103°.

The tumor was a suppurating multilocular cyst, with firm and extensive adhesions to the intestines, abdominal wall and omentum. The great omentum was so firmly adherent to the anterior wall of the cyst that it was ligated in sections and removed. The patient made a prompt recovery, and went to her home on the eighteenth day after the operation. She has now quite regained her former good health.

REMARKS.

The first case is one with a perfect history of pyosalpinx, having had gonorrhœa nine years ago, with more or less pelvic and abdominal pain at each menstrual period after that time, and growing constantly worse from month to month. This history, followed by an attack of peritonitis, should have put her physician upon his guard and prevented the blunder in diagnosis and subsequent treatment of the case. Vaginal examination was made and the case pronounced one of fibroid tumor of the uterus. I have not the least doubt but that the enlargement which her physician thought to be due to fibroid was the tube distended by pus. I cannot understand how he could treat the case for fully four months and not doubt the correctness of his diagnosis. The history of extreme suffering and progressive loss of flesh and strength given by the patient, in contrast with most cases of fibroid tumor of small size, should have made him more than doubt his former diagnosis.

The second physician also diagnosed the case as one of fibroid tumor of the uterus. During the time he was treating her, a period of five months, she had peritonitis three times, suffered constant pain, and lost flesh and strength continually. The only symptoms of fibroid tumor existing in the case when she came to me were the facts that she menstruated freely for ten or twelve days, and the enlarged tubes back and to the sides of the uterus, which he mistook for a fibroma. With the history of the case to guide him, there is no excuse whatever for such blunders.

What shall we say about the treatment of the case with strong currents of electricity? Knowing, as we do, the great danger of rupture of the tubes from contraction caused by the electric current, I would strongly condemn its use in all similar cases. Even though it did not cause rupture of the tube, it would act as an exciting cause tending to produce peritonitis, as in this case, and could do no good whatever. He was willing to try the electrical treatment as long as the patient was able to pay three dollars for each sitting, but after she had no more money he refused to treat her longer—which, by the way, must be regarded as a blessing.

The second case is one in which we should be more lenient with the physician. Yet if he had used due care he would have been able to say that the case was not one of abdominal dropsy only. And when she had an attack of peritonitis following the tight abdominal bandage it should have made him doubt the correctness of his first diagnosis, particularly after she had the second attack of peritonitis, which was followed with so much pain ever afterwards. The second physician overlooked the tumor, although he treated her for six months, during which time she had two attacks of peritonitis; and it was only when the third physician was called and her illness had extended over a period of twenty months that the true nature of her illness was first suspected.

I have stated these facts with no feeling of animosity whatever, and for no other reason than to show that the subject of diagnosis of abdominal diseases is one that is grossly—yes, we might say criminally—neglected by some physicians. It occurs to me that it would be well, as a rule, for the attending physician in all of these cases to call, early, some one recognized as having special ability. This can be done without reflecting upon him, and to the very great benefit of the patient.

In closing my paper, I will say that if you think I have stated facts too plainly and forcibly, I will answer that they are not over-drawn, but rather mildly stated.

EFFECTS OF ALCOHOL IN MODERATE QUANTITY.—Dr. Mogilianski (*St. Petersburg Dissertations*, 1888–9, No. 87) has investigated, in a painstaking manner, the effects of alcohol as a beverage on persons who are and who are not accustomed to it. He selected as his subjects nineteen healthy young men, mostly students, and estimated the constituents of their food and also their urine and feces for several days with and without alcohol. He found that the temporary use of moderate quantities of alcohol in those accustomed to it improved the appetite and increased the assimilation of nitrogenous principles; but that in persons not habituated to its use the assimilation of nitrogen decreased. Alcohol appeared to diminish the assimilation of fat. The destruction of the albuminoids in the body always decreased with moderate doses of alcohol, and frequently even with small ones. No diuretic action was observed; indeed, the amount of urine passed by the subjects while they were taking alcohol was less than when they did not take it. The quantity of alcohol given per diem—usually in the form of vodka—varied from 60 to 140 cubic centimeres. — *Maryland Med. Journal.*

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Society Reports.

CINCINNATI MEDICAL SOCIETY.

OFFICIAL REPORT.

Stated Meeting, September 24, 1889.

The President, Jos. Eichberg, M.D., in the Chair.

Edward S. Stevens, M.D., Secretary.

Dr. Dan Millikin read a paper entitled

Fever (see page 427).

DISCUSSION.

Dr. Comegys said the paper had covered the ground carefully as to doctrine and treatment of fever. The author proposes agents which we all employ in the treatment, but warns us of their dangers, and sometimes thinks that it would be well to let the condition alone. It would indeed be interesting to watch the phenomena in a typho-malarial fever of high grade without any treatment whatever, merely feeding the patient.

I have always regarded fever, to a certain extent, as an element of the *vis medicatrix naturæ*, believing that as heat is a vital stimulant of the first rank, when the system is seriously assailed by toxic agents of any kind, more especially in the ordinary contagious affections, the febrile movement within a certain limit is not an unfavorable indication: indeed, if there were no reactive fever, so to speak, the sufferer would perish in collapse.

Fever indicates an increased combustion or excessive oxidation of the proximate principles of the body; the main elements thus oxidized are carbon and hydrogen, producing increased quantities of carbonic acid and water. Other chemical changes contribute a certain aid to the hyperpyrexia by increased constructive and destructive processes; also physical changes in the moveable organs and the friction in the circulatory movements in the blood and lymph vessels. The products of fever are readily seen in the increase of carbonic acid and moisture from the lungs and skin, and in the exudation of nitrogenous post-organic compounds by the kidneys and skin.

The wasting of the ternary and quarternary principles, more especially in the fatty and muscular tissues, prove that the combustive processes have been at work in them.

There is a form of hyperpyrexia that seems not to be marked by an increase of post-organic products. It follows shock sometimes, and is often very high; perhaps the highest fever seen in the human body is of this character. It does not indicate increased combustion of tissues; its only explanation, so far as I know, is abnormal molecular polarization. Heat is a physical force and is included in the law of correlation of the physical forces. Light produces it, so do electricity, magnetism, chemical affinity, friction, and shock. But the conversion of light, or electricity, or magnetism, or shock into heat is by molecular influences, not by oxidation; but by chemical affinity it is. When abnormal heat appears in the body, as in fever, we ask, what is its correlate? The usual answer is, increased chemico-vital action. Nevertheless other correlates contribute. Vitality is an immensely diffused force in nature, but it is not correlated with the physical forces; there is a certain parallelism, but no identity; there is an essential stimulation by the play of physical forces upon vital functions; as without light and heat, no life; there is also antagonism, and at times it is fierce. This is seen when, through any toxic agency, the vital force is assailed and loses conservative energies in maintaining the integrity of the loosely combined proximate ternary and quarternary compounds—the physical basis of life. Under such circumstances the all-pervading and devouring oxygen ravages these tissues and consumes them, producing enormous and destructive heat unless it be restrained. Myriads of micro-organisms infest the body in disease, some feeding on the carbon, others upon the nitrogen elements of the tissues, and so disintegrate them as to lead to their rapid destruction; and the excreta of these beings (*il faut q'il pisse et q'il s'aise*), the ptomaines, so toxic in character, further depress the nervous influences which hold together the vital organs and maintain their functions in the deadly struggle.

In regard to treatment, it is agreed on all sides that the fever should be restrained—should not be allowed to go beyond 102°, and in the meanwhile the patient should be fed with liquid food mainly, and, as many believe, and I am of that number, a reasonable amount of alcoholic beverages should be administered to assist the nervous system in its functions. The abnormal temperature stimulates correspondingly the circulatory and respiratory actions. If we are able to restrain the fever we also reduce the rapidity of the heart and lung movements. But sometimes, and always of gravest import in the febrile diseases, the temperature may become subnormal, likewise the pulse and respiration. Here we know that the kidneys are choked and the cutaneous emunctories are at fault: uræmia is developed.

In regard to cool and hot baths, I have found them of great value. In inflammatory bowel affections I have never seen any process act more favorably than the immersion of a child to the chin in a cool bath, 85°–90°, and if cerebral congestion exists pouring cold water (cistern water, 65°) over the head and face while the bath is continued say for ten minutes. Aspersions of water over the body do well, but not so well as a full bath. As cold baths are somewhat distressing, it is just as well to give a hot bath, 106°, for six or eight minutes, but whether the bath be hot or cold, the child after it, should be wrapped at once in a woolen shawl; a profuse perspiration ensues, with great relief to all the symptoms. It is a common thing with me to say to mothers, "if your child takes a fever during the night, no matter from what cause, give it a hot bath."

But the giving of baths is so inconvenient in adults that I rely wholly nowadays on the use of antipyretic remedies, the chief of which is antifebrin, according to my experience. It not only surpasses all the rest for reduction of fever, but it lowers the action of the heart and lungs and produces a satisfactory perspiration; meanwhile the patient is quite comfortable. I give it to adults and children, and have never had an untoward symptom in its use; but I give a certain portion of whisky or wine all the time. I have often observed the blueness of the lips, but I go on with the treatment. This especially refers to typho-malarial cases, during which we have generally a tendency to a very high range of fever. From four to eight grains every three or four hours is my dose for adults.

I rarely use quinine or verat. viride. Alteratives should be given during the illness to the liver and the alimentary canal. I think that cerebral and pulmonary complications are rarely seen when antifebrin is used. In a word, I restrain fever in my patients, feed them well, give a certain quantity of alcoholic drinks, and I have had gratifying results.

Dr. Carr said that he was as great an admirer of the virtues of antifebrin as an antipyretic as the essayist. He wished to call attention to the occasional danger of cold baths. The essayist thinks bathing more under the physician's control than the antipyretic drug. While in ordinary fevers this may be true, yet in those in which the temperature runs up to 104° or 105° in a few hours, his experience had been just the reverse. He had found that from seven to ten grains of antifebrin will keep the fever in control, and in a number of cases where bathing had been resorted to, he had known collapse and death to have been the result.

Dr. Reed spoke of the paper as characteristic of the author—containing plenty of nuts to crack and not a chestnut among the lot. One of the questions he raises gives such a conception of fever as to lead one to the idea that he regards it as a pathological entity. The speaker had never looked upon fever as other than a symptom of some pathological process. Whether it results from a ferment or what, yet it is simply symptomatic, and a rational therapy should be directed to the removal of the cause. Of late the experience of the speaker with fever had been principally with the fever of sepsis and surgical traumata. When called upon to treat fever such as occurred during the course of septic infection, after an operation in the pelvis, for instance, the treatment was directed, not to the fever, but to the underlying condition. We should, in the treatment of fevers, first recognize that it is due to a ferment and stimulate the emunctories; and second, consider that fever affords what the essayist is pleased to call a "congenial climate," and apply refrigeration. Baths have been alluded to. By means of the cold pack he had reduced a temperature three degrees in one hour, and he had yet to hear of shock or other disagreeable symptoms from the application. As between cold and heat, he preferred the hot bath. The secondary effect of the cold bath is the same as the primary effect of the hot bath.

Dr. B. M. Ricketts spoke of his use

of antifebrin in cases of carcinoma shortly after the introduction of its use. In large doses he had been able to reduce the temperature a number of degrees, but there was always a necessity for the use of stimulants after it to support the heat. Since then he had used it in septicæmia, but always at a sacrifice to the heat, so that it was necessary to give something for its support. During his work among the small-pox patients in the beginning of his practice he had made use of tepid baths, and he thought he had had good results.

Dr. Reed remarked upon the use of heat as a reviving power, that he was in Illinois a number of years ago and had many cases to treat of pernicious malarial fever. The practice was to put the patient into a corn pack. A half-bushel of field corn was boiled until heated through and then packed about the patient, who was then covered with a blanket. He was somewhat astonished at the practice. He did not use it himself until he found his patients all died under his doses of quinine, calomel, and opium. The resort to the homely corn pack was attended with more fortunate results.

Dr. Eichberg said: Exception may, perhaps, be taken at the very outset to the essayist's definition of fever, for high temperature alone does not constitute fever; indeed the highest temperature on record was the well-known case in England, where, in consequence of a fall from a horse and injury to the spine, the temperature went above 120° F., without any of the other constitutional signs of fever; this case ultimately terminated in recovery. In other diseases of the nervous system, as in some cases of paraplegia, a similar abnormal elevation has been noted, without any sign of constitutional disturbance, to be followed, it may be in half an hour, by a subnormal temperature.

To my mind the conception of fever implies, in the first place, a general disturbance, of which the rise in temperature constitutes an invariable and usually the most prominent symptom. That there is more than the mere elevation of temperature is shown by the rapid pulse, by the increased frequency of respiration, and by the diminution of all the secretions, notably those of the skin and of the kidneys, and of the mucous membrane of the mouth. Probably other secretions, not so accessible to observation, are similarly perturbed.

The prime cause should be sought in a disturbance of the heat-regulating mechanism, whose seat is in the nervous system. It is still questionable whether we can find a distinct thermic center limited to a small area of the central nervous mass, although certain experiments made by eminent physiologists would seem to point to such a localization; yet that there must be a nervous agency concerned is clearly proven, not alone by the manifestations of the febrile process, but by the action of many of the recently discovered antipyretics. Such drugs as antipyrin, antifebrin, and phenacetin have, as we know, the power of promptly reducing abnormally high temperatures, and even of carrying the temperature below the normal limit, in moderate doses. The same doses, when given to a person in perfect health, will scarcely depress the body temperature as much as half a degree Fahrenheit, and frequently they fail of any influence. The explanation must be that in the healthy body, with due adjustment of heat production and heat waste, and a proper action of the regulating center, the effect of the remedy on the nervous system is lost; whereas, in fever, where there is a disturbance of one of the three great factors in the function of animal heat, the influence of the remedy is most pronounced, the loss of thermic equilibrium only enhancing its effect.

The promptness with which the result follows the administration of the remedy is but another evidence which must point to the nervous system as the seat alike of the disturbance and of the action of the drug. This new class of antipyretics represents *medicines* in the most exact meaning of the term, inasmuch as they produce no effect on the healthy body when given in physiological doses, while their action in disease is prompt, decided, and reliable.

Additional testimony in regard to the action of the nervous system on the heat mechanism of the body is furnished by certain diseased conditions of the nervous system frequently attended by depression of temperature below the normal limit. Such examples are not at all uncommon in the disease known as dementia paralytica, or general paresis, where the thermometer in the rectum may indicate a fall of eight or ten degrees below the normal, which is recovered from for a time in some cases, in others persists for days preceding the fatal issue.

The three factors in the thermic mechanism to which reference has been made are thermo-genesis, thermo-taxis, thermolysis, and the fineness of the automatism displayed in their mutual action is clearly shown by the uniformity of temperature exhibited by the human body under the most adverse conditions of external heat and cold. Alike under the tropics and polar circle, in the hot days of summer and in the cold winter season, in infancy and in old age, in labor and in repose, the temperature of the body remains sensibly the same, though the vital chemical changes on which heat production depends must vary greatly under such diverse conditions. Even in fever the normal type is followed to some extent by the periods of remission and increase, the period of the day at which these occur corresponding generally to the rise and fall of the normal diurnal variation.

One point as to treatment has lately been very strongly impressed upon me. Influenced by the favorable reports of the German War Office with reference to the treatment of typhoid fever by Brand's method, which, since its compulsory introduction as a matter of routine in the military hospitals, had resulted in a most remarkable lowering of the mortality, I determined to put all cases of typhoid occurring in my service at the Hospital upon this plan. The Brand treatment calls for a cold bath (temp. 68° F.) for eight or ten minutes, to be followed by packing in a blanket for from one-half to one hour, as frequently as the fever goes above 103°. In one case six baths were given in twelve hours, yet at the end of that time the temperature was still 103.8°. Eight grains of antifebrin were then ordered and the baths were stopped. Within half an hour the temperature was 102°, within two hours it was 99°, and it did not again rise to 103° for fifteen hours. The deduction as to the value of the two plans of antipyresis in this class of cases is obvious.

A word more as to the use of alcohol. The value of alcohol in fever lies in the fact that it furnishes a readily combustible substance, split up in the process of oxidation into water and carbonic acid, which, by its combustion, saves the elements of the tissues from disintegration. That such increased combustion of tissue occurs is attested by the increased amount of CO_2 eliminated during fever, and by the molecular disintegration of tissue as seen under the microscope in the form of cloudy swelling of the cellular protoplasm, and in Zenker's degeneration of muscular fibres, as well as by the rapid loss of body weight and the attendant emaciation, feeble pulse, etc. Now, alcohol, when given early, prevents this change of tissue by presenting a more available fuel; and should, therefore, not be withheld until the pulse is weak, the patient prostrate, and the general breaking down of tissues far advanced—it should be administered early and in fairly large quantities. There is great tolerance for alcohol in fever, both in adults and children, and the indication for its free and early use is especially urgent in fevers of long duration, as in typhoid.

CLOSURE OF DEFECTS IN THE SKULL.—At the Eighteenth Congress of German Surgeons, April 24 to 27, 1887, Dr. Gerstein, of Dortmund, spoke of the closure of defects in the skull. He mentioned the case of a miner, who was brought to the city hospital, January 6, 1888, with a severe injury of the skull. After laying bare the wound in the skull, it was found that two of the larger fragments of bone, which were wedged into each other, could not be raised. Gerstein was therefore compelled to remove one of the fragments, which was thereupon laid in a solution of corrosive sublimate. After gently elevating the large fragment and carefully removing the injured brain tissue, he tried to implant again the fragment that had been removed; but he was unsuccessful in this, as the inner table very much over-lapped the external table of the skull. Gerstein therefore cut the fragment, which was about one and one-half inches long and one-half an inch broad, so that it would fit, and then implanted it. The wound was then closed, after the hemorrhage had been carefully checked. Recovery occurred without disturbance.—*Med. and Surg. Reporter.*

A contributor to the *British Medical Journal* tells of the birth of twins, each of which had been strangled *in utero* by the umbilical cord of the other wound around its neck so tightly as to be sunk deeply into the flesh.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

OFFICIAL REPORT.

Stated Meeting, September 11, 1889.

The President, W. W. KEEN, M.D., in the Chair.

DR. FERDINAND H. GROSS read a paper on

Hæmatometra.

In the experience of most of us, hæmatometra is of infrequent occurrence. This rareness, and not that I have anything new to say on the subject, is my chief inducement for reporting to the society with some detail, two cases of this hæmatic tumor, which came under my observation in the early months of the current year; indeed, the case to be presently mentioned, afforded me the first opportunity in a good many years of experience as a practitioner, of estimating more clearly after a personal examination, the signal importance of the condition. But in the lapse of only a few weeks, a second case presented itself for my treatment. Atresia of the vagina I had repeatedly observed, but never its contingent, hæmatometra.

In the cases to which allusion has just been made, the atresia existed, in one, at the lower end of the vaginal tube, while in the other it consisted in an obliteration of the cervical canal of the uterus; and thus were exemplified two interesting varieties of the occlusion.

A young girl who had been under the care of different physicians without the source of her troubles being fully recognized, was referred to me by a medical friend for treatment, with the information that a tumor occupied the vagina and filled up the lower pelvis.

The patient was in her fourteenth year, and therefore at the age of puberty; but she had never menstruated—that is to say, no visible signs of the catamenial flow had been noticed. The first disturbances of her health had occurred about six months before, and, although she never felt quite well afterward, her indisposition for a time caused no apprehension. But a number of subsequent paroxysms of augmented severity attracted anxious attention. In short, the alarming character of the exacerbations led to a physician being consulted.

When later on, in an advanced stage, the case was referred to me, a digital examination of the vulva revealed protruding therefrom a smooth and very tense swelling, in which the experienced touch could readily detect fluctuation, a feature of the mass very clearly evinced by the rectal exploration. Neither the examining finger nor the probe could find anywhere between this protrusion and the labia an entrance to the vagina. The hypogastrium had become prominent from a tumefaction, which arose from the pelvis. This enlargement in the course of its development had been noticed to be most sensitive during the above-mentioned paroxysmal attacks, which were doubtless the regular menstrual molimina. The continuous abnormal pressure upon the pelvic organs was the occasion of vesicle and rectal tenesmus as well as obstipation; and restless nights were the inseparable accompaniments of such torments. But aside from these there were symptoms of a subjective character, such as headache, giddiness, nausea and other gastric distress, a feeling of painful fulness in the abdomen, palpitation, and disturbed vision which the prescribed glasses of the oculist had failed to relieve. This complex of distressing and long-enduring symptoms was sufficiently pointing to lead to the diagnosis of hæmatometra as a contingent upon atresia hymenalis.

It is not my purpose here to recount with exhaustive minuteness the various results of hæmatometra if relief be not given in good time, by what is usually a simple surgical expedient. Nor would the time allotted permit me to speak of the lesion as it occurs in double vagina, in duplex uterus, and in other malformations of the female generative organs. Greulich relates in concise form, but with sufficient clearness, the different issues of this condition, and cites an array of authors who appear in the literature of the subject; but some of the results of this blood-tumor should not remain unnoticed in this place. Much may depend upon the period of life at which the atresia has been acquired. For example, in the climacteric age the hæmatometra may eventually be tolerated,(1) or at least borne with less suffering or discomfort, since at this period of

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1 Real: Encyclopædie der gesammten Heilkunde, vol. vi., page 180.

change the tumor may cease to enlarge because of the discontinuance of the menstrual secretion. But also at periods prior to the menopause, the rapidity or slowness with which the uterine accumulation takes place, and consequently the degree of its evil effects upon the general organism, may depend upon the character of the patient's constitution, whether this be plethoric and robust, or weakly and anæmic. If the latter be the case, the increase of the pent-up menses may be very meagre or even nil; and again, if vicarious menstruation be established, the addition in utero would naturally be avoided, affording a degree of local relief, or at least checking for a time the progress of serious symptoms, provided the locality of the vicarious function be a safe one.

Among other possible results of this bloody accumulation are enumerated hæmatosalpinx, intraperitoneal hæmatocele, and hæmatoma of the ovarium, each with its serious consequences. The internal osteum of one or both Fallopian tubes may be drawn open by the expansive force of the womb's accumulating contents, which, if not met by tubal obstruction, may ooze out at the osteum abdominale and give rise to an intraperitoneal hæmatocele and peritonitis. In hæmatoma of the ovarium the formative process is likely to be different. Whether at certain periods of functional activity, when the fimbriæ of the tube are said to clasp the ovary to receive the ovule from the bursting Graffian vesicle; or in other words, whether, at the time of direct communication between tube and ovary, the fluid of the hæmatometra ever escapes into the bursting vesicle or stroma of the gland, I must leave to hypothetical speculation. But hæmatoma of the ovarium as well as effusion into the tube may occur by direct extravasation from congested vessels and yet hæmatometra be responsible for either occurrence, since hyperæmia of the uterine appendages is one of the accompaniments or conditions of the hæmatic tumor we are considering. If, therefore, the already engorged plexuses or network of vessels of the environment be periodically subjected to additional blood-pressure, the bleeding that follows the bursting of a Graffian follicle under normal circumstances may now become sufficiently copious to produce results of a pathological character.

Without stopping to speak of a possible rupture which would allow the secretions to flow off in a natural or harmless direction, adhesions may form with the neighboring hollow organs and perforation take place into bladder or rectum. Septicæmia from decomposition within the womb is here the greatest danger. The entrance of urine on the one hand, or of fecal matter or intestinal gases on the other, would be favored by the womb's enfeebled contractile power, as that organ could not empty itself with promptness nor with that degree of force of which it is possessed when developed for a physiological purpose. The pressure of tumors is recognized as a cause of uterine atrophy, and we can readily conceive in hæmatometra the attenuated condition of the muscular coat. Another danger of infection might be a vaginal cul-de-sac below the point of perforation into either of the hollow viscera mentioned, which would serve as a reservoir for decomposed matter.

Considering the possible results of this condition, no time was lost in providing for the escape of the accumulated secretions.

Hymen imperforatum in a large majority of the cases is not discovered before the age of puberty, and the one referred to was doubtless of the congenital variety.

The operation can hardly be called a painful one, but the girl had become so irritable and sensitive from long suffering and repeated examinations, that the puncture by trocar was made under the ether narcosis. Thirty-two ounces of reddish-brown, chocolate-colored fluid was drawn off without interruption of flow. The canula being removed, a crucial incision with a probe-pointed bistoury enlarged the opening, whence a little fluid continued to ooze. Ergot was administered, but only gentle pressure was applied externally by an abdominal binder. The vagina was gently washed out with a weak solution of the bichloride. The uterus remained too high to be reached by the finger, and an examination per force was uncalled for. The vaginal surface was smooth and devoid of its rugæ. As an additional precaution, the pudendum was covered with compresses of antiseptic gauze.

It is to be remembered that the imperforate hymen is not a normal but a patho-anatomical structure. On the inner side its mucosa is continuous in cul-de-sac form with that of the vagina, and externally the mucous membrane is continuous with that of the vulva, while between these layers lies a fold of connective tissue. The membranous barrier in this case was found thick and tough beyond expectation, imparting the feel of soaked leather.

The relief was prompt and decided; on the second day there was some pain in the hypogastrium, but no significant rise in the patient's temperature. In four weeks the menses were discharged in a normal manner, and this has recurred at regular intervals ever since.

In the second case alluded to, the woman is close upon forty years of age, and has lived in the marriage relation for half that period, but remains childless. The evidence she relates as pointing to a miscarriage in the third year of her married life, is not conclusive. After that time she enjoyed good health until thirteen years ago, when she "had a severe fall backward," after which she endured so much pain in trying to void her urine, that she fainted. Her physician said she had "dislocated her womb," and used instruments to replace it. She was confined to bed for three weeks and then treated in a hospital in this city; whence she returned home, still in a feeble condition, and remained in poor health for several years. These early troubles are briefly mentioned since they concerned the genito-urinary organs, but I will not tax your patience with a history of subsequent maladies which had but doubtful or no connection with the patient's later complaint. Suffice it to say, that after an attack of typhoid fever as far back as 1883, she regained her former good health, and in all the years that followed until the month of May, 1888, the menstrual function was regularly performed. It was then, however, that the lesion which concerns us here appears to have had its beginning. The monthly discharge of blood became scanty, and to the patient it appeared as though "a stringy leucorrhœal discharge had replaced the regular flow." Nor was she as free from pain as she had formerly been during her regular turns. In the following August her menses failed to appear, and the amenorrhœa continued for eight months—that is to say, until she was relieved by the operation to be mentioned further on. As regular as had been her monthly turns, just so regular were during those eight months the attacks of lumbar pains and uterine cramps, the severity of which increased with each returning molimen. In vain she now applied for relief both to regular and irregular practitioners. The latter advised her to enter their hospital and submit to a laparatomy for the removal of what they pronounced to be a "fibroid tumor attached to the uterus and left ovary." This advice was not followed, and it need hardly be said in this presence that the diagnosis was as incorrect as the laparotomy would have been unwarranted. The condition grew from bad to worse. From dire necessity the woman had learned to catheterize herself, and was enabled by that means to get frequent relief from one of her greatest torments.

On the 30th of last March she entered the German Hospital, where she became my patient. On examination the next day, I found a large, smooth, very hard and firm tumefaction pressing low in the pelvis. The os could not be found and there was no discernible discharge from the vagina. Fluctuation was not at all perceptible, either by the vaginal or rectal examination. The mass had repeatedly been held by others to be a fibroid; but on hearing the patient's own account of the case, from which the above is a condensed statement, I declared it to be a hæmatometra, at once verified the diagnosis with an aspirator-needle, and on April 2d introduced an ordinary sized trocar to draw off the long pent-up secretions. In penetrating at the indistinct but supposed point of the former os, the instrument imparted the sensation of passing through a wall of considerable thickness before reaching the cavity, showing the obstruction to be something more than membranous. It was probably brought about by a stenosis of the inner os, combined with an endocervicitis and adhesions of the entire cervical canal.

The mahogany-colored, jelly-like fluid, or semi-fluid, could not flow freely through the canula of the trocar, but came only drop by drop. The cervix dilator therefore replaced the canula, and being used as a director for making a shallow crucial incision, a quart of the tarry substance was drawn off. The cavity of the womb was freely washed out with a continuous stream of the mercuric solution. Ether was not administered.

The after-treatment was in the main similar to that instituted in the other case. Recovery was complete, and the patient has several times since the operation menstruated at regular periods.

DISCUSSION.

Dr. John C. DaCosta: I would ask Dr. Gross where he punctured the uterus in the second case? Did he attempt to follow the cervical canal, or did he put the trocar directly into the mass? I congratulate both patients on having fallen into the hands of Dr. Gross, and out of the hands of their previous advisers. Hæmatometra is not of common occurrence, and when we have it, it is usually due to closure of the entrance; or atresia, so called. The first case I think would be described in the books rather under the head of atresia of the vagina than of hæmatometra. I do not understand how those who had previously examined and treated the case could have overlooked the nature of the difficulty. They would not have done so if they had heard the late Professor Wallace lecture on atresia vagina, as he used to describe it, with "the bulging membrane looking like a child's head coming out." If they could not have made a vaginal examination, an examination by the rectum would have shown the uterus above and the soft fluctuating mass below, and made the diagnosis for them.

The second case seemed to be due to closure of the cervical canal. This is more common after the application of solid nitrate of silver than people generally are aware of. There is apparently something particularly vicious about the application of solid nitrate of silver to the cervical canal. Stronger agents may often be used without producing the trouble it does. I do not see how in this case a practitioner could mistake the nature of the trouble. The gravity of such cases often arises from imperfect examination of the parts, and, therefore, no knowledge of the condition, and as a result of this—want of timely treatment.

Dr. Lawrence Wolf: I had the pleasure of examining the second case with Dr. Gross. I assisted him in emptying the uterus, and my curiosity being aroused as to the nature of the chemical changes that had taken place, I secured some of the contents for examination. The microscope showed that there were no corpuscles present. I made the blood test, and secured Teichmann's hæmatin hydrochloride crystals. While there was undoubtedly blood, there was no hæmoglobin but hæmatin. I think the question is not altogether solved as to what becomes of the serum-albumen in such conditions. The uterus is not prone to take up serum-albumen, but here it had evidently been absorbed, and nothing but globulin and hæmatin remained, as we found to be the case when the mass was mixed with water, which rendered it turbid, the globulins being insoluble in water. The fact that globulin is not taken up is not generally known. We know that the corpuscles, as a result of pressure, poisons, and other conditions, will break down, and that hæmoglobin will be changed to hæmatin, but it is not generally understood that in hæmatometra serum-albumen, which is diffusible, is reabsorbed, and globulin retained. These facts have a bearing upon various pathological conditions, especially some forms of nephritis, and that is one reason why I have brought up these points in regard to the condition of the blood in these cases.

Dr. Price: These congenital forms of atresia are quite common. In the last few years a great many operations have been done for infantile forms of the female generative organs, and in many of these cases we find atresia. In the last year I have done two sections for regular menstrual molimen without blood. They had suffered from the age of thirteen or fifteen years to thirty-five, without any menstrual flow. In these cases I found atresia with infantile uteri. The appendages were rudimentary. There was no accumulation.

A few years ago, a lady asked me to attend her in her confinement. Conception had immediately followed an operation upon the cervix done by an estimable operator. She had been sterile for five years before the operation. Previous to this she had borne three children. She sent for me after she had been in labor for some time. There had, however, been no show. On examination I found a supravaginal diaphragm, without the semblance of os or cervix. I made a careful speculum examination, and sent for a friend, a man of good judgment and experience. The head was engaging, but no os could be found. We made a crucial incision in this diaphragm, and she was delivered of a healthy child without trouble. She made a good recovery, and has since borne children. In this case, although a canal had been left, there were probably some granulations which subsequently closed it.

Ten days ago, I operated upon a cicatricial case. The woman had borne four healthy children, but had not menstruated for some years. I found but little accumulation. There had been extensive sloughing, and I had to make a vagina throughout. A portion of the blood had apparently been absorbed. The material found in these cases is usually of a hard character, similar to that in hæmato-salpinx. It will make a black mark, and can be used as a crayon.

The discharges from the tubes of which Dr. Gross speaks, I am satisfied last only a short time. The irritation is sufficient to provoke occlusion of the tube, and we have the clubbed condition of the tubes seen in accumulation of fluid in the tubes. The tubes look like the end of an amputated finger. I have here two specimens illustrating this point. The woman from whom this was removed never conceived. There is a semblance of a pavilion. There has been salpingitis and local peritonitis, causing closure of the pavilion. Here you have a broad ligament cyst, an occluded tube, and a typical hydrosalpinx. Schrœder gives an interesting discussion of this entire subject, and cautions care in the examination that leakage or rupture may not occur. It is evident from his remarks that this accident had occurred in his hands.

DR. GROSS: In reply to the question of the first gentleman, I would state that there was only a point indicating where the os might have been. I followed this in the direction one would suppose that the canal would take. It was some distance before the trocar reached the cavity.

In regard to the first case, an examination per rectum might have revealed a small uterus if the fluid had been contained only in the vagina. This case was, however, of six or seven months' standing, and the secretions, after filling the vagina, had also dilated the cervix and uterus. Here the term hæmatometra is also used. When the vagina only is filled, it is an hæmatocolpos. To be more exact, unless you object to long names, the term hæmatometrocolpos would express the condition when both vagina and uterus are involved.

I am obliged to Dr. Wolff for his interesting remarks in regard to the character of the fluid. His remarks make the report of the case more complete.

SOUTH-WESTERN OHIO MEDICAL SOCIETY.

FIRST DAY—EVENING SESSION.

The entire evening of the first day's session (October 9) was devoted to a discussion on "Diphtheria." The subject was opened by Dr. J. T. Whittaker, during which he exhibited some diphtheria bacilli under the microscope, which had the appearance of crooked dumb-bells. The doctor then proceeded to give a brief historical sketch of the disease, which had been recognized by the ancients and was common in Egypt and Syria, while it apparently disappeared from the medical history of this country from 1810 to 1840. Bretano was the first writer who definitely separated it from other throat diseases. In 1827 he recommended alum and performed tracheotomy; he first foreshadowed its local character. Neither season, soil nor country has affected the spread of the disease. It is found in marshes, on shipboard, and alike among the rich and poor. It prevails in the dry air of California and in the marshes of Algiers. It is undoubtedly infectious. The bacilli live in milk, in chickens and pigeons, and for its treatment he recommended Monsel's solution.

Dr. Eichberg spoke of the pathology of the disease. That it is a distinct and isolated, well-defined morbid process, infectious, readily communicated by contact, manifests itself in all temperatures and climes, and it would often seem that cleanly homes invited the disease. The Caucasian, Malay and African are all liable to it. No age is exempt, and the sexes suffer alike. Heredity plays no part in it, and apparently the most robust are the most liable. A child was received at the Cincinnati Hospital with diphtheria; croup appeared, tracheotomy was performed, and the child died; both nurses took the disease within five days. That the diphtheria poison enters the throat and attaches to the fauces is no more strange than that the typhoid germs enter the alimentary canal. A father put his finger into the throat of a child that had diphtheria; there was a sore on his hand and the poison developed there. The most serious complication is the diphtheritic paralysis. Its cause is an inflammation involving the spinal cord. It is the direct result of a poison introduced into the circulation from the origin of the diphtheritic process. Epidemics of the disease have occurred among calves and pigeons.

Dr. Wm. Carson spoke of the identity of croup and diphtheria, in which he expressed the opinion that there may be membranous croup without specific diphtheria. There are other evidences besides the presence of the membrane to indicate the poison of the disease.

Dr. Millikin not being present, a paper by him on diphtheria of the genitalia was read by Dr. C. A. L. Reed, in which the author stated that women not infrequently have this disease of the vagina and external genitalia at the time of confinement, and that it has been developed on the penis of children after circumcision.

Dr. DeBeck spoke of diphtheria of the conjunctiva, sometimes caused by direct contact and sometimes by the result of decrease of continuity of the mucous membrane. In the case of Dr. Kebler, who is myopic, last Monday he had a slight attack of conjunctivitis. Cocaine was applied. On the second day the lids became leathery, and the conjunctiva a dense gray. A few days before he had examined a child suffering from diphtheria; during the examination the child coughed in his face, the third or fourth day the discharge became abundant, hot fomentations were applied every fifteen minutes. The case illustrates direct inoculation.

Dr. Dandridge said that a few years ago tracheotomy was the only remedy offered patients when in danger of suffocation; now we have the additional one of intubation. If by any means we can avoid opening the trachea it should be done; generally it can only be performed when the patient is in extremis. There are certain dangers attending it: hemorrhage frequently occurs, the operation is often done in a hurry and accidents occur, it involves the necessity of a large wound and furnishes a fresh field for the spread of the disease. Then, again, there is difficulty in removing the tube. Intubation can be made early in the disease, and parents do not object to it as they do to tracheotomy. Out of his twenty cases of tracheotomy but three had been successful.

Dr. J. A. Johnston read a very excellent paper on intubation, which we are pleased to be able to give our readers in full.

Dr. C. S. Caldwell spoke of post-diphtheritic paralysis.

Dr. C. W. Tangeman spoke of diphtheria as it affects the eye.

Dr. Comegys, in his treatment of the disease, used brine for the inflammation found in scarlet fever and diphtheria; used with a hard-rubber syringe it flushed out the membrane. The tongue should be depressed and the stream thrown directly in the throat. Where there are complications he uses mercury until the characteristic green stools appear; rubs blue ointment in the axillaries and gives the patient all the whiskey that can be borne. He is opposed to tracheotomy; it has always been fatal in his cases. He favored mercurial treatment and intubation; has used a hot bath at a temperature of 108°; by this means the blood is cleared of its depressing influences.

Dr. P. S. Conner said he was not partial to tracheotomy; had always lost the cases of diphtheria when operated on by tracheotomy; yet, when the operation was for a foreign body he had never lost a case. If stenosis or narrowing of the pharynx occur intubation will afford relief. In some cases the membrane is torn up and the air-passages blocked up, so that intubation can not always be performed. Tracheotomy is an exceedingly difficult operation in the case of a child with a short, fat neck. There is great danger from hemorrhage, and patients have been deluged to death from blood pouring into the trachea. If intubation does not succeed tracheotomy may. Personally, he would rather perform an operation for the hip-joint every hour of the day than one of tracheotomy. In young children under a year it is never successful.

Dr. Whittaker insisted on the value of local treatment of croup and diphtheria. Dr. Comegys favored brine, but what is that but chlorine, the most powerful antiseptic? He favored Monsel's solution, and was not so opposed to tracheotomy. Let the operation be performed before there is any danger of septic poison.

This closed a most notable discussion of one of the most frequent diseases the physician is called upon to treat.

SECOND DAY.

At ten o'clock the parlor was well filled with physicians, and Dr. H. M. Brown opened the work of the day by a paper on "Points in the Right direction," which we are pleased to be able to give our readers in full.

Dr. F. Forchheimer presented and described a new instrument, the hæmometer, for determining the amount of coloring-matter in the blood. He described its use in differential diagnosis, as, for instance, between pernicious anæmia and chlorosis, as well as in other diseases. The instrument is simple in construction and inexpensive.

Dr. A. D. Murphy, of Pleasant Plain, read a paper on "Digitalis in Acute Pneumonitis in Infants," using in conjunction with the remedy alcoholic stimulants, and reporting good results in his cases.

In discussing the paper, Dr. Goodhue, of Dayton, said we all endorse a stimulating treatment in the last stages of pneumonia; the question is, however, whether it was the digitalis or whisky that benefits the child.

Dr. A. W. Ashburn, of Batavia, read a paper on "Therapeutics of Antipyrine." In quantities it produces general depression and cyanosis. It reduces the temperature in typhoid and malarial fevers and relieves pain. He had used it successfully to relieve local inflammation in whooping-cough and scarlatina. Hypodermically the drug has been successfully used in sciatica, lumbago and rheumatism. French physicians have treated diabetes with it. It will calm the terrific pains of spinal meningitis. It is often adulterated with benzine. Its indiscriminate use by the laity should be discouraged, and the druggists should not prescribe it.

Dr. E. W. Mitchell indorsed Dr. Ashburn's high estimate of the drug, but he thought it the safest antipyretic. He had succeeded better with it than with antifebrine. In typhoid fever he did not administer antipyretics, and believed cold-water treatment preferable in typhoid. He favored antipyrine in children in all diseases where there was fever. In anæmia of women, and neurotic ones, too, the drug has a deleterious effect.

Dr. Brown had used the drug in all diseases of a nervous origin, and for diabetes.

No one seemed anxious to give the drug the showing up that it needed, though it is well known that Dr. Bruehl's son was nearly killed by the drug in the typhoid epidemic of a few years ago, and the talk was sub rosa in medical circles at the time that the excessive mortality was due to its indiscriminate use. The habit of taking antipyrine, which is growing in cities, especially among women of a nervous disposition, was not thoroughly dwelt upon.

Prof. Christopher spoke entertainingly on "Indigestion." He related the case of a man who was put on a light diet, oat-meal, toast, rice, etc. Quantities of gas were generated, on account of the sugar, and the man complained of pains all over. He was put on a diet of meat, fish, eggs, no milk, and a diet not containing starch or sugar, but one of nitrogenous food, and recovered.

AFTERNOON SESSION.

Dr. R. T. Trimble, of New Vienna, read a paper on "Puerperal Eclampsia, or Childbed Convulsions." Mental worry contributed to produce the trouble. If the patient is plethoric, veratrum was commended; if anæmic, morphia. Chloroform was useful and should be used. Bleeding was rarely required, and is not commended in convulsions after labor.

Dr. Reamy confined his remarks to the treatment of the disease. If anything is agreed to it is that uræmia is to a great extent the cause of the trouble. A child is more liable to convulsions than an adult. They have them from worms, over-feeding and intestinal trouble. Why? Because the spinal cord is larger and more active than in the adult. The whole sexual system can be excited by exciting the cerebellum, sciatic nerve or ovarian nerve. Whatever will lessen arterial tension is beneficial. The remedy is from twenty to thirty drops of Norwood's tincture of veratrum, and in thirty minutes, perhaps from fifteen to twenty, you will get the action of the medicine on the heart. It directly acts on the cardiac pressure. It acts on the inhibitory nerve. He had frequently given twenty-five drops for the first dose, and repeated every half-hour twenty drops. He claimed that it was not dangerous. If it is, give whisky or one-fifth of a grain of morphia. The mortality is about twenty-five per cent., but not when veratrum is used.

Prof. W. H. Taylor differed in toto from Dr. Reamy. There are two classes of cases: one with anæmia, quick and rapid pulse, albuminuria; with the other class they should not be called uræmic. Take the young woman who is healthy—plethoric. She becomes unconscious, pulse slow and full, pupils contracted. That's the case for veratrum—that's the case for bleeding. For a man to say that all his cases get well from chloroform or morphine—that he never bleeds—is simply to miss what may furnish relief. He favored Brusque's treatment, of Breslau, which consisted of hot baths.

Dr. A. C. Hawley, of Eaton, read a paper on "Abortions," with the report of a case.

Dr. Gustav Zinke spoke of the treatment of abortions. Those which occur in the first four weeks may be looked upon as delayed menses. Ergot ought never to be given until the ovum is in the cervic canal and the hemorrhage continues. It is wrong to give ergot as long as there is any thing in the uterine cavity.

Dr. C. A. L. Reed read a paper on "Ovarien Tumors." It is difficult to define the different kinds of ovarian tumors. He urged the importance of early operations, before the cellular substance of the tumor had been formed. He referred to a number of cases — one where a forty-seven-pound tumor was taken from a woman in Sidney, Ohio. He exhibited a specimen of colloid material cut from a patient's peritoneum.

Dr. Rufus B. Hall indorsed early operations, as thereby the malignant growth was often prevented, and its recurrence was not so liable. It is simply impossible to tell whether a tumor of the ovaries is malignant or not until the abdomen is opened.

Dr. B. S. Ricketts discussed the paper. Too much time is wasted in trying to differentiate before the abdomen is opened. He spoke of a case where he differentiated a simple ovarian cyst. The abdomen was opened and he discovered three cysts. He urged early operations, early interference. The earlier means taking hold of these cases before serious complications ensue.

Dr. W. W. Hall, of Springfield, reported a case and operation of "Sarcoma of the Pelvis."

Dr. Longstreet Taylor discussed the paper, as well as Dr. Seth Evans and Dr. R. B. Hall.

Thanks were tendered to the Burnet House, and Dr. R. L. Bell, of Springfield, was elected President. The Society adjourned to meet in Springfield the third Thursday in April, 1890.

Thus was closed the most successful first meeting of a medical society that we ever heard of. Taken as a mirror reflecting the activity that is abroad in the land, it is an omen of a new era in professional work. The guiding in channels that will do the most good to the worker, the reader of papers, and to the entire medical profession, is the livest question of the day. Allegiance to legitimate medicine and to one another in the bonds of professional organizations that will gather into one common fold the entire profession of this country is all-important. Unification in one common organization means unlimited power for good. Segregation means a waste of strength and influence.

It is hoped that the American Medical Association at its next meeting will adopt such measures as will enable such organizations as the South-Western Ohio, North-Western Ohio, North-Eastern Ohio, and Central Ohio to become practical branches of the great national association. Such action will open a channel for a complete unification of the American medical profession. We are very much pleased to see the *Journal of the American Medical Association* opening up this great subject in a manner that commends itself to our attention. It is the great practical thing to do, and demands the most thoughtful consideration of all who have the common welfare of the entire profession at heart.

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations.

LEONARD FREEMAN, M.D.,
J. C. OLIVER, M.D.,
OTIS L. CAMERON, M.D.,
F. O. MARSH, M.D.,
Curators and Microscopists.

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

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DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, October 19, 1889.

The Week.

THE WATER WE DRINK AND A PARK.

The water supply of this city is drawn directly from the Ohio River—a water-course that is fed mainly by mountain brooks and streams that bubble through and over a sandstone formation that is so entirely free from lime, as to afford a water that is soft, and where it is uncontaminated with inorganic matter, is absolutely pure and wholesome.

As if to improve on this, the Allegheny and Kanawha salines emptying into these tributaries, still further add to its value as a potable water.

The Ohio being a navigable stream from its source to its mouth, and flowing through one of the most extensive and fertile valleys in the world, with great sections of coal and iron mines in the neighborhood of its headwaters, have all contributed towards bringing into the valley a dense population, that is annually much increased in numbers—particularly in the urban places. Every one of the towns and cities belch their sewage and filth into the river. This sewage contamination has become so excessive as to be a constant menace to the health of the people who draw their water supplies from the river.

Two years ago when there was an unusually dry season, and the river low, typhoid fever prevailed here as an epidemic, and the death rate from this cause alone was very high. Professor Rachford, of the Medical College of Ohio, on making a series of observations, found in the Ohio River water taken at the inlet opposite the water works pumps, the typhoid bacillus, thus showing the danger that existed and constantly threatens the city from this source.

A spasm of alarm on the part of the city authorities caused the appointment of a Water Commission, which practically did nothing beyond drawing several thousand dollars from the city treasury for personal compensation. The Commissioners offered no solution to the demand for a better and more wholesome water supply.

Unfortunately there was not a man on the Commission that had made any study whatever of sanitary science. They literally failed to accomplish the purpose for which they were appointed. A cause of the failure may no doubt be found in the fact that the board was mainly composed of practical politicians, and without a known sanitarian in any of its parts. Not one appreciated the situation from a health standpoint; not one offered a proposition that could be practically adopted, and to-day the city is no better off in its water supply than before these men undertook a task for which they had no qualifications that were worthy of any consideration.

The Ohio River being a navigable stream from its source to its mouth, its waters should be under the direct supervision and control of the National Government, which should, so far as possible, use all reasonable precautions to prevent the unnecessary contamination that is constantly on the increase, while no effort is being made for its protection from polution.

Particularly should this oversight extend to the portions of the river in the neighborhood from which supplies are drawn for the use of towns and cities.

This city should at once obtain by purchase the strip of land bordering on the river from the mouth of the Little Miami, extending eastward to a point not less than six to seven miles, and even eight miles would be none too far from the place of beginning.

This strip need not extend back from the river more than a fourth to a half mile, which would be sufficient to place municipal control over the river banks, enabling the authorities to forever prevent contamination of the river to a point of comparative safety above the water works.

From the mouth of Deercreek a sewer should be constructed eastward along the Ohio and Little Miami Rivers, to a point near the present corporation line. This sewer has been long talked of. Its necessity is apparent and beyond question. Plans for its construction should receive immediate attention.

The long strip of land above referred to could be improved and beautified, transforming it into a handsome park. A place that would in every sense be a joy to the people, as well as a health preserver and life protector.

A conservation of the health and preservation of the lives of the people is the very first duty of the municipal, State and National Governments.

SOCIETY NOTICES.

Academy of Medicine.—

Monday evening, October 21, Dr. W. E. Kiely will read a paper on the subject, "Pleuritic Effusions."

Cincinnati Medical Society.—

October 22, Dr. Zenner, "Clinical Significance of the Tendon Reflexes."

October 29, Dr. W. L. Mussey, "Case of Popliteal Aneurism." Annual Election of Officers.

ELECTRIC LIGHT AND POWER WIRES.

The horrible spectacle of a man suspended in a network of wires and being actually cremated a few feet above the heads of a multitudinous throng in the City of New York has created a panic that will eventuate in good by compelling electric light and power companies to put their wires under ground. This has been actively resisted by these corporations on account of the additional cost that it places on their plants, the officers of such corporations constantly making the assertion that it could not be done—there could be no means of insulation that would be effectual. The additional cost we are ready to grant in the argument, but a practical means of almost perfect insulation is possible and entirely practicable. There is no insurmountable difficulty in having glass pipes cast in moulds two, three, or four inches in diameter and of the length of common sewer pipes, *i.e.*, twenty to twenty-four inches. The material may be of the cheapest used in glass making, toughened, and made, where necessary, with the necessary L's, T's, and apertures. These glass pipes, for secure protection, may be encased in the ordinary clay sewer pipes. The electric wire cables may then be drawn through the glass pipe, which, encased in a clay sewer pipe, will provide a perfect means of insulation. Furthermore, this is a process or method that is cheap enough to make it practical.

Our streets are becoming so threaded and webbed overhead with wires that they are a constant menace to life and property. Especially are they dangerous in cases of fire. It is as much as a man's life is worth to offer to cut a street wire or to allow it to come in contact with his person or even his clothes. Scarcely a week passes that there is not announced an injury or death from this cause, all of which are unnecessary and may be reckoned as manslaughter. If caused in like manner by an individual, the law would certainly hold him responsible, and impress it on his mind with a wholesome sentence to the penitentiary.

No franchises should be granted to any corporation allowing them the right to string overhead wires in a town or city. This done, a way will be found to put them underground.

THE MOUNT AUBURN INCLINE ACCIDENT.

Last Tuesday the people of this city were horrified with the news of the giving way of the cable and car connection on this inclined plane, by which five persons were instantly killed and as many more mortally or dangerously injured. We are not able to inform our readers of the immediate cause of the accident, as the Coroner has not completed his investigations. The man and his wife who always told you so are on the street and just telling it over and over again.

However, there are some things in connection with this particular street railroad that call for an explanation from the City Board of Public Affairs, who have control and charge of the streets, and the City Solicitor—viz.: How and why is it that this corporation has been allowed to occupy the streets with their tracks and cars without obtaining a charter or franchise from the city? And how is it that there has not even been an attempt to collect a car license from the company?

It is entirely within the province of the Board of Affairs, who exercise the functions of a Board of Health, to cause an official inspection of all inclined planes and other railways that may be operated in any manner that places life in danger. Such an inspection of the other inclines should be instituted at once. This may appear to be on the principle of "locking the door," etc., but this should be coupled with that other adage, "It never rains but it pours"; and a pour of that particular kind of accident is not a good thing to have.

Booms.—The Mississippi Valley Medical Association received a veritable boom at its late Evansville meeting. The echoes are still flying about, and will reverberate far into the future. If a boom were possible, the men having it in charge this year were the ones to make it the greatest possible. Why is it that tri-state and similar medical societies all originate and develop in the West and South? Is it because the country is malarious? It matters little; so long as the profession get together, promote good fellowship, and advance medical science and art. However, we would regard it as a more helpful sign of progress if the state societies were the object of greater attention. The little local societies also need a tonic.—*American Lancet.*

We know of nothing that is more beneficial to the entire medical profession than the booming of its societies and using all reasonable efforts to bring together a large number who have common interests, for the purpose of comparing notes, reading papers and discussing their subjects.

Let us boom our local societies, and then with one accord join hands and boom our great National American Medical Association.

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Or Lancet-Clinic office.

We print elsewhere in this issue of our journal some remarkable statements from the well known manufacturing and importing druggists, Messrs. Tarrant & Co., New York, which are based upon a recent court decision in Berlin. Every physician who is interested in preventing substitutions, or in obtaining genuine preparations, should give the communication a careful persual. The time has gone by when business can long thrive through false swearing.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending October 12, 1889.

WARD.	Measles. Cases.	Measles. Deaths.	Scarlet Fever. Cases.	Scarlet Fever. Deaths.	Whooping Cough. Cases.	Whooping Cough. Deaths.	Diphtheria. Cases.	Diphtheria. Deaths.	Typhoid Fever. Cases.	Typhoid Fever. Deaths.	Croup not Diphtheritic. Deaths.
1st	...	..	...	..	...	..	1	..	...	..	...
2nd	...	..	...	..	...	..	2	2	...	..	...
3rd	...	..	...	..	...	..	2	1	...	..	...
4th	...	..	...	..	...	..	1	..	...	..	...
5th	...	..	...	..	...	..	...	..	...	1	...
6th	...	..	...	..	...	..	2	3	...	..	...
7th	...	..	...	..	...	..	2	..	...	..	...
8th	...	..	...	..	...	..	1	1	...	..	...
9th	...	..	...	..	...	..	...	..	...	..	...
10th	1	..	1	..	...	..	3	2	...	1	...
11th	1	..	...	..	...	..	7	1	...	..	...
12th	1	..	...	..	...	..	...	..	...	..	1
13th	...	..	...	..	...	..	1	..	...	..	...
14th	...	..	...	..	...	..	1	..	...	..	...
15th	...	..	1	..	...	..	...	..	...	..	...
16th	...	..	...	..	...	..	3	..	...	..	...
17th	...	..	..	..	.	..	2	..	...	..	...
18th	...	..	...	.	...	..	...	..	...	..	...
19th	..	..	...	..	...	..	...	..	...	..	...
20th	...	..	...	..	...	..	1	..	...	..	...
21st	.	..	.	..	...	..	...	..	..	..	...
22nd	...	..	...	..	...	..	1	..	...	1	...
23rd	...	..	...	..	...	..	4	..	...	..	...
24th	...	..	1	1	...	..	1	1	...	..	...
25th	...	..	...	..	...	..	1	..	...	..	1
26th	...	..	...	..	...	..	2	..	...	..	...
27th	...	..	...	..	...	..	4	..	...	..	...
28th	1	..	...	..	...	..	2	..	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	2	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	1	1	...	..	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	1	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	4	..	3	1	...	..	47	12	...	4	2
Last week	...	..	9	..	3	..	46	19	...	1	4

The following is the mortality report for the week ending October 12, 1889.

Diarrhœa	3	
Dysentery	2	
Entero-Colitis	1	
Other Zymotic Diseases	21	27
Cancer	2	
Phthisis Pulmonalis	10	
Other Constitutional Diseases	2	14
Bright's Disease	2	
Bronchitis	6	
Convulsions	3	
Heart Disease	3	
Liver Disease	1	
Peritonitis	1	
Pneumonia	10	
Other Local Diseases	11	37
Old Age	2	
Premature Birth	2	
Other Developmental Diseases	5	9
Accidental	1	
Unknown	1	2

Deaths from all Causes	89
Annual death rate per 1000	14.24
Deaths for corresponding week in 1888	83
Deaths for corresponding week in 1887	80

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 32 observers (embracing 29 counties) show the following diseases to prevail for the week ending Friday noon, October 11, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Diarrhœa	17	31
Bronchitis, acute	15	27
Intermittent Fever	10	17
Tonsillitis	9	22
Typhoid Fever	9	17
Rheumatism (acute	8	11
Dysentery	7	8
Diphtheria	5	12
Erysipelas	5	5
Pneumonia	5	5
Typho-Mal. Fever	4	8
Remittent Fever	4	4
Pleurisy	4	4
Whooping Cough	3	8
Cholera Morbus	2	3
Consumption (Pul.)	2	2
Scarlet Fever	1	1
Cholera Infantum	1	1
Croup, membranous	0	0
Measles	0	0
Puerperal Fever	0	0
Cerebro-Spin. Men.	0	0

REMARKS.

Diphtheria reported by observers at Louisville, Mercerville, Crestline, Maineville, and Woodville. Reported by health officers: Toledo, 22 cases, 7 deaths; Columbus, 26 cases, 2 deaths; Akron, 11 cases; Xenia, 6 cases, 1 death; Youngstown, 3 cases; Findlay, 2 cases; Zanesville, 1 case; Middletown, 2 cases; Hamilton, 4 cases, 1 death.

Scarlet Fever reported by one observer at Dupont. Reported by health officers: Columbus, 8 cases, 1 death; Findlay, 2 cases; Wooster, 1 case; Akron, 1 case; Youngstown, 3 cases; Crestline, 8 cases; Painesville, 2 cases.

Typhoid Fever reported by observers at Albany, Crestline, Summerfield, New Lexington, Auburn, Perry, Bowling Green, Sharonville, and Lyons. Reported by health officers: Toledo, 1 death; Youngstown, 1 case; Crestline, 1 case; Mechanicsburg, 2 cases; Salem, 1 death; Hamilton, 3 cases; Painesville, 3 cases; Norwalk, 1 case.

Diphtheria reported epidemic at Woodville.

C. O. PROBST, M.D., Secretary.

Bibliography.

PATHOLOGY AND MORBID ANATOMY.

By T. HENRY GREEN, M.D. Sixth American from the seventh English edition. Revised and enlarged by STANLEY BOYD, M.B., B.S.Lond. Illustrated with one hundred and sixty-seven engravings. Philadelphia: Lea Brothers & Co. For sale by Robert Clarke & Co. Price $2.75.

This was one of the first books on Pathology that presented the subject in so satisfactory a manner as to be not only favorably received by the medical profession, but was at once placed in the enviable position of text-book in all medical schools. The author has from time to time rewritten and revised the work, and brought out successive editions that have continuously kept it abreast of a most rapidly advancing department of our science.

The edition now before us has been ably edited and revised by Professor Stanley Boyd, and while preserving the clear and simple style of Professor Green has added all the new knowledge of the subjects treated. An entirely new chapter on fever is added by the editor.

OPHTHALMOLOGY AND OPHTHALMOSCOPY. For Practitioners and Students of Medicine.

By Dr. HERMANN SCHMIDT-RIMPLER, Professor of Ophthalmology in Marburg. Translated from the third German revised edition. Edited by D. B. ST. JOHN ROOSA, M.D., LL.D. Illustrated. New York: Wm. Wood & Co. 1889.

As a didactic text-book on ophthalmology, this work is certainly superior to any that has been offered to American medical students. It presents the subject treated in a form that facilitates its reception and retention by the memory. The dreaded mathematical formulæ that are so prominent in most other works on ophthalmology are almost entirely eliminated. The mathematical presentation of the subject by teachers and through the media of text-books has prevented many a practitioner from giving the proper attention to this subject. Physicians should cease sending clients to opticians, druggists and notion dealers for spectacles, who are not supposed to have a knowledge of physical defects of vision or the cause and remedy for the existing condition. A trial case, with intelligent reading of a book like this, will enable any practitioner of medicine to do an amount of work in this line that will soon surprise him; he should also become familiar with the use of the ophthalmoscope. The fact that the work is edited by Prof. Roosa is commendation sufficient for all who are familiar with ophthalmic literature to know that it fully presents the most advanced knowledge of the subject.

NINTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF ILLINOIS. With an Appendix embracing Report on the State Sanitary Survey, Vital Statistics of Illinois and Coroners' Inquests, Meteorological Tables, Report on State Medicine in 1886.

Springfield, Ills.: Springfield Printing Co., State Printers, 1889.

The Illinois State Board of Health is recognized as one of most active and most efficient Boards in existence. Supported as it is by efficient legislation, it has been a power for the working of untold good to the medical profession in that State. We only regret that there is so much apathy on the part of the profession in our own State, and that we are needlessly overrun with quacks of every degree and species. It is useless for us to attempt to give a summary of the contents of this Report. Its greatness and perfection render it a standard of comparison.

J.M.F.

DISEASES OF WOMEN: A Manual of Non-Surgical Gynecology, designed especially for the use of Students and General Practitioners.

By F. H. DAVENPORT, A.B., M.D., Assistant in Gynecology, Harvard Medical School; Assistant Surgeon to the Free Hospital for Women; Physician to the Department of Gynecology, Boston Dispensary, With numerous illustrations. Philadelphia: Lea Brothers & Co., 1889.

"Of making books" on gynecology "there is no end." Contrary to our expectations, however, the present book has a place and fills that place admirably. Excluding all surgical gynecology, except such simple procedures as demand no special skill, it is a better and a much safer guide to the general practitioner than a more extended treatise. Pathological anatomy has been omitted, however, with, we think, questionable propriety, for even the general practitioner ought to understand the pathology of the diseases he treats, and will undoubtedly be more capable of treating them when he has acquired such knowledge. The treatment is condensed and confined to methods which have proved of most value in the hands of the author.

J.M.F.

LECTURES ON OBSTETRIC NURSING. Delivered at the Training School for Nurses of the Philadelphia Hospital.

By THEOPHILUS PARVIN, M.D., Professor of Obstetrics and Diseases of Women and Children at Jefferson Medical College; Obstetrician to the Philadelphia Hospital. Philadelphia: P. Blakiston, Son & Co. Price 75 cents.

This little book comprises two lectures and an appendix, covering in all 104 pages. The lectures were delivered to the pupils of the Philadelphia Hospital Training School for Nurses. They are publised as they were given, only a few eliminations having been made, and these are considered, in alphabetical order, in the appendix. The name of the author is sufficient guarantee of the excellence of the work in the field for which it is designed.

J.M.F.

AMERICAN RESORTS, with Notes upon their Climate.

By BUSHROD W. JAMES, A.M., M.D., Member of the American Association for the Advancement of Science; the American Public Health Association; the Pennsylvania Historical Society; the Franklin Institute, and the Academy of Natural Sciences, Philadelphia; the Society of Alaskan Natural History and Ethnology, Sitka, Alaska, etc., etc. With a translation from the German, by MR. S. KAUFFMANN, of those chapters of "Die Klimate der Erde," written by MR. A. WOEIKOF, of St. Petersburg, Russia, that relate to North and South America and the islands and oceans contiguous thereto. Intended for invalids and those who desire to preserve good health in a suitable climate. Philadelphia and London: F. A. Davis, 1889.

American physicians, as a rule, pay less attention to the climatic treatment of disease than do the European. The same is true of American text-books; they rarely refer to the advantage that may be derived from residence at any particular resort. Such advice is too often in the vague form of "a change of climate," or "abode at the sea-shore," etc. This, we believe, is not because there are not as many and as good resorts in America as in Europe, but because they are not widely enough known. The attempt is not usually made in this country to introduce such resorts through the medical profession, but rather by means of circulars bearing statements so extravagant as to merit the ridicule of any intelligent person. The present work is therefore capable of doing much good. It does not aim at a scientific consideration of the subject of climatology, but to be of some practical service to the numerous health seekers in search of information regarding our climate and health resorts. It does not consist of a profusion of so-called analyses of mineral waters of much less value than their cost, but of a clear statement of facts regarding all of the more important resorts in our own country. About 1,200 resorts receive more or less extended notice. The work is well worth perusal.

J.M.F.

DIPHTHERIA: Its Nature and Treatment.

By C. E. BILLINGTON, M.D., and

INTUBATION OF THE LARYNX, and Other Acute and Chronic Forms of Stenosis of the Larynx.

By JOSEPH O'DWYER, M.D. New York: Wm. Wood & Co., 1889.

In the present work Dr. Billington has added a valuable article to his former writings on Diphtheria, and has made a valuable contribution to the literature of the subject. Although not presented as a complete treatise, the work is as full as could be desired on a subject about which so many and so widely diverse views have been expressed. The author considers diphtheria a specific, infectious, contagious disease, at first local in character, soon becoming constitutional. He gives full prominence to the modern views of its parasitic origin. We are glad to see that reference is made to the explanation of the manner in which the bacteria, generally admitted to be aerobic in nature, may grow upon surfaces where oxygen is absent, as made to the Cincinnati Academy of Medicine last January by our townsman, Dr. B. K. Rachford. It will be remembered, however, that when Dr. Rachford offered his ingenious explanation, stating his belief that the bacteria, when they attacked such regions as the stomach or intestines, obtained their supply of oxygen from the oxyhæmoglobin of the blood, an event which would be rendered possible by presence of congestion and erosion of the mucous membrane, he distinctly gave credit for his theory to Dr. W. S. Christopher. We make this statement only through a desire to do justice to both gentlemen, knowing that Dr. Rachford has neither the desire nor the necessity to claim anything of which he is not the author.

The chapter on "Intubation of the Larynx in Croup," by Joseph O'Dwyer, M.D., is as excellent as it is authoritative—excellent because of its conciseness and perspicuity, authoritative because emanating from the originator of the procedure which has served to mark an epoch in the history of one of the most fatal diseases of childhood. It is just the style of article that is needed to properly lay before the profession the merits of the operation.

Space will not admit of a more extended notice of this work. We are glad, however, to be able to testify to its excellence throughout. The book is beautifully printed from clear type, and the text is well illustrated with one chromo-lithograph and numerous wood-cuts. J. M. F.

PAMPHLETS RECEIVED.

Report of the Special Committee on Antiseptic Obstetrics, thirty-seventh annual meeting, Illinois State Medical Society, held at Rock Island, May 17, 1888. By CHAS. W. EARLE, M.D., Chicago. [Reprint.]

Observations in Vienna: The General Hospital, Billroth, Carl Braun, Bandl and Others. By same author. [Reprint.]

Infant Feeding. By same author. [Reprint.]

The Influence of Sewerage and Water Pollution on the Prevalence and Severity of Diphtheria. By same author. [Reprint.]

Retained Débris as one of the Causes of Puerperal Fever. The Intra-Uterine Douche and Curette. By same author.

Cephalhæmatoma of the New-Born. By same author. [Reprint.]

The Treatment (not preventive) of Puerperal Fever. By same author. [Reprint.]

Address of President C. W. Earle. Delivered at the thirty-ninth annual meeting of the Illinois State Medical Society, May 21, 1889. J. M. F.

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Has been on trial among physicians for very many years as a healing agent. **By far the Best Tar Soap made.**

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Correspondence.

FALSE SWEARING.

FICTITIOUS COURT DECISIONS BACKED UP BY LYING AFFIDAVITS FOR THE SAKE OF SELLING A SUBSTITUTE EXTRACT.

To the Medical Profession:

Physicians who have been induced to prescribe the *substitute* Hoff's Malt Extract, which is put up in a *short, squatty* bottle, bearing the name of "Johann Hoff" and "Moritz Eisner" on the neck and sold as the genuine or the imported Hoff's Malt Extract, will no doubt be surprised to learn that the proprietors of that article have just been convicted in a Berlin court of circulating a fictitious and maliciously false court decision and of swearing to a false affidavit.

The *genuine* Hoff's Malt Extract was introduced into this country in 1866 by the manufacturer, Mr. Leopold Hoff, of Hamburg, and *was then sold in a short, squatty bottle.* In 1869 a new slender and handsome green bottle was adopted for the sales in this market and the agency for the United States and the British Provinces of North America was transferred to us.

In 1880 a *new firm,* styling itself "Johann Hoff," started up in Berlin, and began *mixing* and putting on the market a *substitute Hoff's Malt Extract.* Moritz Eisner, then of Philadelphia, now of the Eisner & Mendelson Company, No. 6 Barclay street, New York, became the American agent.

The manufacturers of this *substitute* adopted the bottle which had been abandoned for this market, and there is no doubt but that this led to some confusion.

Lawsuits followed, both in this country and in Germany, and *in every instance the cases were dismissed at the cost of this new firm.* They then appealed to the Supreme Court of the German Empire. On a technicality the case was sent back to the lower court for a retrial. In May, 1887, there appeared in various trade and medical journals (and notably in the *Oil, Paint, and Drug Reporter,* of New York) an article headed "Another Court Decision on Hoff's Malt Extract." It reflected severely upon our firm and upon Mr. Leopold Hoff. It purported to be the decision of the Supreme Court of the German Empire and was signed "Reuling, Judge." We promptly denied the authenticity of the document, as did Mr. Leopold Hoff, whereupon the Eisner & Mendelson Company, in a letter printed in the *Oil, Paint, and Drug Reporter,* of June 22, 1887, without attempting to answer our allegations concerning the spurious character of the article whose insertion was caused by them, stated that they had in their possession an exact copy of the decision of the German Supreme Court for any one's perusal, and printed in the letter the names in full of the judges who signed the genuine decision. If they had, they must have known the document which had already appeared, and which was freely circulated through the mails over a year afterwards, was fraudulent. An investigation proved the document to be a *garbled copy* of the plea of a lawyer, named Rueling, who argued the case of the firm styling itself Johann Hoff before the German Supreme Court.

In January, 1888, Max Martin Hoff, one of the partners of the so-called firm "Johann Hoff," for whom the Eisner & Mendelson Company are agents, made an affidavit before a Philadelphia notary public that their lawyer's plea, which had been published as the decision of the Supreme Court of the German Empire, was a *true* and *correct* copy of that decision, and this lying affidavit with the false court decision were printed side by side and circulated extensively among the medical men and drug trade of this country. At the time he made this affidavit he **was then in Philadelphia, superintending the mixing** of the substitute article on the premises of the G. Manz Brewing Company, Sixth and Clearfield streets.

Copies of these publications being sent to Mr. Leopold Hoff, he promptly sued the Berlin firm for damages and to enjoin them from their further circulation, and on June 13, 1889, the following decision was rendered, which we reproduce as cabled to us by Mr. Lang, the then U. S. Consul at Hamburg, per our request:

"HAMBURG, June 28, 1889.

"*Tarrant & Co., New York:*

"As requested, I send extract translated from certified decision of the Berlin Court Prussian Royal Landsgericht, rendered June 13, 1889, in the case of Leopold Hoff *vs.* 'Johann Hoff':

"Defendants admit that they have sent to Eisner & Mendelson the paper filed by their lawyer, Reuling, in the Hamburg Revision case. It is not to be doubted that defendants have done it in order that the paper should be used by their agents for advertising their preparation against plaintiff or Tarrant & Co.

"The defendants say the publication was only an error of their agents (Eisner & Mendelson Co.), but it is clear that the defendants have directly ordered their agents to publish their own paper as the decision of the Reichsgericht. According to the opinion of the Court this intention existed from the beginning. Max Martin Hoff *admits* having confirmed the statement that the published decision is that of Reichsgericht, but it is proved that *he has sworn to it.* By signing the affidavit he has acted carelessly in the highest degree if he has sworn without taking notice of the contents of the paper, and it must be taken that Max Martin Hoff swore to the paper with the intention of maintaining the publication that the same is the decision of the Reichsgericht.

"Decision as to the amount of damages is reserved (Signed)

"LANG, U. S. Consul."

What a terrible rebuke this is to both the proprietors and the agents of this substitute extract!

What confidence can be placed in the virtue of a preparation or upon the claim of a firm convicted of circulating false court decisions and of swearing to lying affidavits?

Will the medical profession jeopardize the health of their patients by allowing them to take the *mixtures* of such unprincipled parties?

Whether they *mix* their preparations in Berlin or in Philadelphia, any physician who will take the trouble to examine it will find it to be a light, sour, and nauseous liquid, bearing evidence in odor, taste, and appearance of a *doctored beer*, having the effect of a stimulant, while the genuine and original Hoff's Malt, "*Tarrant's*," is a *nutrient.* In this connection we desire to say that complaints frequently reach us to the effect that "patients are nauseated and unable to retain the Malt," but upon investigation we have found in every instance that it was *the substitute Hoff's Malt* that was complained of. We have also learned that, failing to get results from using the *squatty bottle*, many physicians (supposing that to be the genuine article) have abandoned the use of Hoff's Malt.

In order to protect physicians and their patients, and draw an unmistakable line between the *original* and the substitute, the original and genuine imported preparation is now labeled

Hoff's Malt Extract, *Tarrant's*,

and if, when prescribing, physicians will specify "Tarrant," no mistakes can occur. The genuine article, as stated above, is put up in a slender green bottle. It is of agreeable taste, and besides being the original it is undoubtedly the best liquid malt on the market.

It is recognized by many of our leading physicians as a standard nutritive tonic for convalescents, nursing mothers, sick children, and in all wasting diseases. It is a safe, pleasant appetizer and invigorant, and was recommended by no less an authority than the late J. Milner Fothergill, M.D., as a food in typhoid fever.

Hoff's Malt, *Tarrant's*, has been imported continuously by us from Hamburg since 1869, and all that we have ever received or sold has been manufactured in the factory of Mr. Leopold Hoff, who originally introduced this preparation into the United States in 1866.

TARRANT & CO., New York.

Established 1834.

THE

CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, October 26, 1889. *WHOLE VOLUME LXII.*

Original Articles.

MORBID PERFORATIONS OF THE NASAL SEPTUM.

A Paper read before the American Medical Association, Newport, R.I., June 1889,

By A. B. THRASHER, A.M., M.D.,
Cincinnati, O.,
Professor of Laryngology, Cincinnati Polyclinic.

Nearly two years ago my special attention was directed to morbid perforations of the septum narium by meeting with a case in a friend and patient of my own. I had grown to regard nearly all such perforations as of syphilitic origin, but in this case I knew that syphilis did not exist as an etiological factor.

I now give a brief history, bearing on this point, of the cases which have since fallen under my observation in my private practice. My cases at the Cincinnati Polyclinic bear in the same general direction, but I desire more time with these cases to verify my points before offering my conclusions to the profession. I have endeavored to eliminate from these histories everything which does not, in a manner, bear upon the etiology of the disease. Through negligence I have at times failed to record all data, but where there is a doubt as to a fact I leave it unrecorded.

CASE I.

Miss D., æt. fourteen. Family history renders syphilis probable. Has always had delicate health and much throat and nose trouble. Consulted me for aphonia, due to ulceration of vocal bands. Half of epiglottis eaten away by a sloughing ulcer. Large cicatrices over posterior pharyngeal wall, which by contraction had drawn the velum much out of place. Has had pain in nose, and about one year ago noticed a slight falling of the bridge of the nose. Now has a perforation of septum the size of a silver quarter, embracing cartilage and bone. Both lower turbinates absent. Treatment local and antisyphilitic.

CASE II.

Mrs. L., æt. twenty-eight. Family history good. Married for two years. Had miscarriage eighteen months ago, at two months, from unknown cause. Gave birth to a healthy child four months ago. Was under my treatment for acute follicular tonsillitis one year ago, at which time the septum was intact. Three months ago had pain in nose, more especially about the bridge, with occasional attacks of epistaxis. Her general health at that time was bad, as she made a "bad recovery" from childbed. She is now feeling better, but has much pain in nose and an offensive purulent discharge from both nares. Examination revealed a ragged perforation of septum, one-half inch in diameter, with necrosis of left lower turbinate. The perforation involved the anterior border of Vomer, apparently having begun at the junction of the bone and triangular cartilage. The family physician, a gentleman of education and large experience, assured me that there was no suspicion of syphilis on either side of family. The child is perfectly healthy and has never exhibited any symptoms of syphilis. However, to give the patient the benefit of the doubt, she was put on constitutional as well as local treatment and in two months she was about well.

CASE III.

Miss S., æt. twenty-six, a lady of excellent reputation and no family or antecedent trouble pointing towards syphilis. She consulted me for acute follicular tonsillitis. In making my routine examination of the nose I discovered a perforation of the cartilaginous septum of the size of a silver dime. The opening had smoothly cicatrized edges, except a slight ulceration under a crust adhering to the upper border for one-quarter of an inch. There was a history of occasional "colds in the head," with some mild attacks of epistaxis, but no pain in this region. The patient had no previous knowledge of the perforation. The slight ulcer healed rapidly under local treatment.

CASE IV.

Mrs. McK., æt. forty-six. Has two healthy living children, the youngest twelve years of age, and never had a miscarriage. Has had nasal catarrh for years, with frequent and distressing bleeding from nose. Never had any sores in mouth or throat, or any skin eruption. Family doctor says no syphilis on either side of family. Consulted me for hypertrophic rhinitis. Examination revealed a small perforation, one-third of an inch in diameter, of cartilaginous septum. The upper posterior quarter of opening was ulcerating. The ulcer healed slowly under local treatment alone.

CASE V.

Mr. H., æt. twenty-eight, married, one healthy child two years old. Wife has had no miscarriages. Has never had syphilis, "although would not hesitate to tell me if true." Has been troubled for two or three years with a crust forming over the septum, which he had been accustomed to remove by picking with his fingernail. The removal in this manner was occasionally followed by slight hemorrhage. There was now a perforation, as large as a goose-quill, of the cartilaginous septum, the posterior edge of which was slightly ulcerated, the ulcer being covered with a dry crust. There was no pain felt at any time in this region. The ulcer healed readily under local treatment.

CASE VI.

Mr. S., æt. twenty-seven, single. General health good. No history of syphilis or any of its symptoms. For a year has had crust formations over left side of septum, which he has been in the habit of picking off with finger nail. Pain has never been a feature of the case. Examination revealed a dry brown crust on the cartilaginous septum. The removal of this crust disclosed an ulcerating surface half an inch in diameter, sloping in gradually from circumference until the center had penetrated two-thirds through the cartilage. The ulcer healed slowly, and in three months cicatricial tissue covered the depression caused by the eroding ulcer. The treatment was simply local.

CASE VII.

Mr. H., æt. thirty-one. Married. Two children, both healthy. Never had syphilis. Consulted me for hypertrophic rhinitis. On examining the nose I discovered a perforation, one-third of an inch in diameter, of the cartilaginous septum, which he thought he had caused by picking the nose too much. There was no ulceration at the time nor during the two following months when H. was under treatment for the hypertrophied turbinates. There had never been any pain in connection with the case.

CASE VIII.

Mr. S., æt. twenty-six, single. Family history tubercular. Six years ago had several chancres, which he called syphilis. Took medicine for three months and has never had any other symptoms of syphilis. Has had occasional attacks of epistaxis for years, and crust formations in nose, which he had involuntarily removed with fingernail. Examination revealed a small perforating ulcer of cartilaginous septum. There had never been any pain in connection with the ulceration. The ulcer rapidly cicatrized under local treatment.

CASE IX.

Mr. McC., æt. forty-six. Married, with three healthy children. Family history good. General health perfect. No probability of syphilis. Consulted me for irritation of throat of short standing. Has had occasional brief attacks of bleeding from nose. Examination revealed a ragged perforation, half inch in diameter, of cartilaginous septum. He had no idea that there was the least nasal difficulty. The ulcer healed kindly under local treatment.

CASE X.

Mr. K., æt. forty-four. Married, and has four healthy children. Family history good. Never had syphilis or any symptom. Was flour inspector by profession, which necessitated snuffing all grades of flour. Consulted me for laryngitis and cough. Examination revealed an opening half inch in diameter through the cartilaginous septum, with one-quarter of the circumference still ulcerating and covered with brownish crusts. Did not know anything was the matter with his nose. The ulceration healed kindly under local treatment.

CASE XI.

Mr. M., æt. thirty-two. Primary syphilitic sore three years ago, followed by usual secondary lesions. For a month has had pain in bridge of nose, with a sanguinopurulent discharge. Examination revealed perforation, one inch in diameter, of septum narium, embracing bony and cartilaginous portions. There was also necrosis of left inferior turbinate. The parts healed under constitutional and local treatment.

CASE XII.

Mr. P., æt. fifty, consulted me for an acute pharyngitis. I then discovered a small perforation of triangular cartilage of septum, which, he claimed, had been present "for years." There was no indication or history of hereditary or acquired syphilis. The perforation had never given rise to any trouble.

CASE XIII.

Mrs. H., æt. forty, widow. One healthy child, no miscarriage. Consulted me for follicular tonsillitis. Routine examination of nose revealed a small perforation of septal cartilage, which she affirms that she distinctly remembers was present when a child "under ten years old." She remembers to have examined other children at that time to see whether there was a like condition. No history or evidence of syphilis. It has never created trouble.

CASE XIV.

Mrs. J., æt. thirty. Suffering now from constitutional syphilis. Has necrosis of bone and cartilage of septum, with destruction of right inferior turbinate. Has severe pain over bridge of nose and frontal sinus. Put on constitutional and local treatment.

CASE XV.

Mr. W., æt. thirty-one, married. Two healthy children. Never had syphilis. Has been troubled with formation of crusts on septum since a youth. Has always removed this crust with fingernail. Has had no pain, but occasional slight hemorrhages. Several years ago, while removing this crust as usual, was much surprised and frightened by pushing nail entirely through septum, since which time the perforation has slightly increased in size. It has not perceptibly enlarged for three or four years. The slight ulceration at edge healed rapidly under local treatment, but occasionally he drops into my office with recurrence.

CASE XVI.

Miss C., æt. fifteen. Family history good. No suspicion of syphilis. Consulted me for acute follicular tonsillitis. Examination of nose revealed a small perforation of cartilage of septum, of the existence of which she was ignorant. The edges were cicatrized, and, of course, the condition had occasioned no trouble.

Local treatment in these cases consisted in, (1) when necessary, cleansing the surface of all secretions and crusts; (2) cauterizing the ulcer with a twenty five per cent. solution of argentum nitras, chromic acid, trichlor. acetic acid, or the galvano-cautery; and (3) the application of a mild disinfectant, as: Seely's yellow oxide of mercury ointment; one per cent. of resorcin in vaseline; or five per cent. of white extract of pinus canadensis and one per cent. of carbolic acid in vaseline.

When there was present necrosed bone this was carefully removed with forceps and curette.

The constitutional treatment was addressed to the supposed underlying dyscrasia.

From an analysis of these cases it will be seen at a glance that three were unquestionably syphilitic; eleven were probably non-syphilitic; and I have placed Cases II and VIII in the doubtful column. In Case II the lady's husband was a commercial traveler, and thus might have contracted the disease and conveyed it to his wife without the knowledge of the family physician. The fact that her child is healthy and that she has no other manifestation of the disease speaks strongly against the syphilitic theory. In Case VIII there was a history of several small sores, pronounced by a doctor to be syphilitic; a month's constitutional treatment *per os*, and no subsequent symptoms. The multiple character of the lesion, together with the absence of any following suspicious symptoms, would point toward a soft sore rather than to a Hunterian chancre. However, I place this with Case II in the doubtful list.

In the syphilitic cases the perforation involved the osseous as well as the cartilaginous part of the septum; indeed, it is probable that the periosteum was attacked simultaneously, or nearly so, with the soft tissues. In Case II, doubtful, were present exactly the same conditions. In each of these four cases one or the other of the turbinated bones had become affected; and pain in the bridge of the nose was observed, which symptom was absent in all the other cases. While no pain at all was felt in twelve of the cases, it is well to remark that in no case was there pain in the ulcerated area of the septum. The application of the cautery gave rise to no feeling of pain, showing a well-developed localized anæsthesia. In this respect the ulcer might be called *lupoid*, but the other characteristics of lupus were wanting.

It is true that the number of cases is hardly large enough to give much value to deductions therefrom; yet this is a full report of all private cases coming to my office for over twelve months. In these sixteen cases which I have the honor to report, the following facts will be easily recognized:

First.—A large majority of these cases of perforation of the septum were non-syphilitic.

Second.—The majority of the cases were giving rise to no trouble, and needed but simple local treatment.

Third.—The prognosis in every case was favorable, with treatment; in the majority of cases, favorable without treatment.

ABDOMINAL GESTATION. — Dr. H. Kreutzmann reports a case, in the *Pacific Medical Journal*, which possesses some interest. A very careful examination showed that the uterus was empty, but that a fetus was somewhere in the abdomen. This was about six weeks after the death of the fetus. The patient was then suffering from symptoms of septicæmia. A week later laparotomy was performed. A gust of fetid gas and fluid escaped from the adherent ovisac, and upon enlarging the incision more gas and amniotic fluid of the same quality escaped. The fetus, partially decomposed, was removed. The woman died on the seventeenth day after the operation, "not from the operation, but in spite of it," as the author states.—*St. Louis Med. and Surg. Journal.*

SYMPATHETIC AFFECTIONS OF THE EYES RESULTING FROM DISEASE OF THE NASAL PASSAGES.

A Paper read before the Mississippi Valley Medical Association, at its fifteenth annual meeting, at Evansville, Ind., September 12, 1889,

By FRANCIS DOWLING, M.D.,
Cincinnati.

By way of text to the few remarks which I have to make, I wish to give the outlines of a few cases which came under my observation some time ago.

CASE I.

Carrie B., living in one of the suburbs of Cincinnati, was brought to me last February complaining of a trouble of her eyes. Her mother says that she has been ailing for over two years, and during that time has been under the treatment of several physicians, with varying success. Sometimes her eyes would get better for a time, and then all of a sudden get worse again. She had to wear a shade most of the time, as the light caused her eyes to water, and gave her a great deal of pain.

On examination I found a small ulcer the size of a pin head on the pupillary margin of the cornea of the right eye; there was also moderate conjunctivitis; there was marked photophobia of both eyes, and particularly so of the affected one; there was no disease of the lachrymal ducts; the patient presented a healthy, well-nourished appearance, and there was no enlargement of the cervical glands.

I placed the girl under appropriate treatment, such as instillation of a solution of atropia into the eye, inunction of an ointment of ext. belladonna and ung. hydrarg. to the temples, bathing the eyes in warm water, etc. At the end of a couple of months' treatment in this way she got somewhat better. I then ordered cod-liver oil in tablespoonful doses, with tonics. I now sent her home and advised her physician to continue the treatment.

In about three weeks she came back to see me, evidently as bad as ever. On examination I found that the ulcer of the right eye had almost entirely healed, but the left eye had become affected; there were a couple of small ulcers on the cornea almost in the center of the pupil, and the photophobia was so intense that I had great difficulty in examining the eye.

I continued the former treatment with the exception of the inunction in the region of the temples, but instead I ordered blisters of cantharides the size of a dime applied in this region, and as soon as one crop of blisters healed up others were applied. This treatment was kept up for about a month, when there was considerable improvement, but the patient was not entirely well. About this time her mother remarked that whenever the child caught a cold in her nose her eyes got worse. This led me to examine her nose for the first time, when I discovered that the child was affected with chronic rhinitis, with considerable thickening of the mucous membrane of the nose, especially over the lower and middle turbinated bones. I ordered irrigation of the nasal passages with warm water and a solution of boric acid for about a week; then I applied a ten-grain solution of tannin in glycerine to the lining membrane once a day. The combined treatment was kept up until the middle of June, when the patient had entirely recovered, with the exception of two small opacities of the cornea of the left eye, corresponding with the location of the ulcers, which had healed.

The above case taught me a lesson. I had no idea at first that there was any trouble of the nasal passages, or that if present it would cause the severe symptoms that were present in the eye; in fact, I was sorely puzzled to find a cause. I was inclined to think the disease was keratitis scrophulosa. Any one who visits the great eye clinics of Vienna is struck with the great number of scrophulous eye affections found there, and one gets accustomed to consider the majority of corneal ulcers of the above nature as scrophulous, especially if there is no other well-marked cause discernible. I fell into this error in the case cited. Henceforth I shall be more careful, and examine the nares in all cases of obscure eye trouble that come under my charge.

CASE II.

The following is another case which came under my notice a few months ago:

Mr. G., a traveling man, consulted me about an affection of the eyes, which he thinks comes from catarrh. He says he has a feeling of itching and heaviness in his eyes when he wakes up in the morning; when he goes out in the light they ache and run water. He has been troubled this way for over a year; has been bathing his eyes in salt and water, and is using a nasal syringe for his catarrh.

On examination of the eyes I found that there was chronic thickening of the conjunctiva of the lids of both eyes; there seemed to be no granular condition; the vision was normal. On examining the throat I found a well-marked case of naso-pharyngeal catarrh. I ordered a solution of zinci sulph. and morph. sulph. to be dropped into the eyes once a day, and a douche of solution of tannin for the nasal trouble.

The man had to go off on a trip a few days afterwards, and I lost sight of him.

CASE III.

The following is another case that came under my observation in November, 1888:

F. G., aged 18 years, came to consult me about a trouble of his eyes. States that when he tries to read for any length of time his eyes grow tired and run water; they are always red-looking, and feel heavy in the morning on getting up. Has been attending high school, but was obliged to give up on account of falling behind in his classes from inability to study on account of his eye trouble. He has normal vision in both eyes, although both parents and a sister are myopic; there is a moderate conjunctivitis of the lids of both eyes, but otherwise there is no discernible disease. His thick nasal speech distinctly showed that he was affected with nasal catarrh, and on examination I found that he had chronic rhinitis, with deviation of the nasal septum to the left side, leaving the opening to the right nostril large and irregular, and the left narium small and nearly entirely occluded. The patient said that whenever he caught a fresh cold he could not breathe at all through the left side of his nose.

I prescribed a weak solution of morphia and sulph. zinc for his eye trouble, to be dropped in morning and evening; and for the trouble of his nose I ordered a solution of borate of soda and carbolic acid, to be used in a douche once a day. I also applied to the mucous membrane of the nose by means of a brush a solution of ten grains of tannin to an ounce of glycerine every second day. Then the following was given internally:

℞ Hydrarg. bichlor., } aa grs. ii.
Ammon. mur. }
Tr. ferri chlor., . ℥ss.
Syr. zinziberis, . . ℥v. M.
Sig.—Dessertspoonful three times a day.

At the end of about three weeks' treatment the thicknening of the nasal mucous membrane had considerably diminished. Local treatment was kept up three months longer, when the patient was discharged apparently cured, and is now attending college.

Although much has been written within the last few years on the subject of sympathetic affections of the eyes arising from affections of the nasal passages, still the field is a comparatively new one, and I have cited the above cases principally to bring the matter before the Association for discussion.

We all know that the connection between the nose and the eye is a direct one, through the medium of the lachrymal duct. In this way the lining membrane of the nose is continuous with that of the eye, and we can readily understand how disease of one may readily pass over, so to say, to the other; thus a nasal catarrh will affect the lachrymal duct, and this in its turn will affect the eye, in the form of conjunctivitis, etc. But there are other cases in which the causes of the trouble are not so well marked: the tear ducts may be normal, there may not be even any evidence of disease of the nose to be transmitted through these canals to the eyes, but still the eye symptoms are there, without any assignable cause. It is this class of cases which Dr. John M. McKenzie has described as "reflex phenomena." Without going into an elaborate descriptiom of the symptoms, they may be characterized briefly as follows: There is more or less constant lachrymation, the conjunctiva is more or less swollen, and this condition frequently passes into what is called granular lids of the soft variety; there is usually irritation of the Meibomian glands, accompanied by perversion of the cilia; itching of the eyelids is frequently present, and usually there is more or less photophobia.

Patients with this chain of symptoms may be found every day, making the rounds of the doctors, with varying success, but rarely getting well, each fresh cold they take aggravating the trouble of the eyes. The reason they do not improve is that the doctor generally treats the local *eye* symptoms *per se*, when the trouble is in the *nose*. Examining the nasal passages of such a patient, there would probably be found a rhinitis, with hypertrophy of the mucous membrane, covering the lower and middle turbinated bones, or a deviated septum, causing a narrow, occluded passage on one side, and a larger, irregular one on the other. Our success in such cases will depend upon a proper treatment of the nasal disease, with due regard of course to application of soothing remedies, etc., to the eyes, backed by a constitutional tonic and alterative treatment, and a due attention to the hygiene of the patient's surroundings.

Now, in conclusion, I do not mean to say that every case of disease of the nasal passages will give rise to an affection of the eyes, but I do mean to say that in a large percentage of cases, where there is chronic rhinitis, with thickening of the mucous membrane of the nose, there will be more or less of the so-called reflex symptoms in the adjoining organs, and particularly of the eyes.

Dr. J. M. McKenzie has conclusively shown that there are sensitive areas in the nose, particularly over the lower turbinated bone, the irritation of which produces reflex symptoms in the larynx, eye, etc., and we all know that the irritation of a foreign body in the nose will produce a copious flow of tears and irritation of the eyes. We can readily understand that the presence of a thickened, inflamed mucous membrane, a deviated septum, etc., will act in like manner as foreign bodies.

Now, a concluding word in regard to the prognosis of affections of this nature. While in some instances a few weeks' treatment of the disease of the nasal passages will be sufficient to cause the eye symptoms to disappear, the great majority of cases will require months of careful and continuous treatment to effect a cure, and in many cases no cure can be effected at all. The important point, however, is to start in the right direction, and recognize the cause of the disease as being situated in the *nose* and not in the *eye*, and shape the course of treatment in accordance with the proper diagnosis.

164 West Ninth Street.

THE LOCAL TREATMENT OF SYPHILITIC PHENOMENA.

By G. FRANK LYDSTON, M.D.,
Chicago, Ill.

The knowledge of syphilis possessed by the average practitioner appears to be embraced in the aphorism, "Pox is syphilis, syphilis is pox, and mercury and potash are good for it." Comparatively few are disposed to take pains in allaying or removing as far as possible the immediate and unsightly results of the disease. In this respect it is perhaps unfortunate that mercury and iodine are such faithful servants, even to the routinist. If these remedies were less potent even when applied in a haphazard fashion, the physician would *nolens volens* take more pains in the study and management of his cases. Nothing is so markedly neglected as the local management of the lesions of the disease; this is the more reprehensible because of the readiness with which they may often be controlled and the patient rendered less unsightly and more comfortable. It may not therefore be a gratuitous task to present the therapeutical measures which have done me ten years' faithful service in a by no means inconsiderable number of cases of syphilis. I desire to state, however, in this connection, that obstinate lesions are exceptional in my own practice in cases coming under treatment at the time of development of the primary lesion, unless the patient wilfully neglects himself. So mild is syphilis under modern rational treatment, that one is compelled to patronize a dispensary clinic, else he is not apt to see much of a variety of lesions unless he is a veritable tyro in the management of the disease.

As I realize the value of the space of the LANCET-CLINIC, and moreover as I intend to present a complete dissertation on the subject in the near future, I will be brief and to the point.

LOCAL TREATMENT OF THE CHANCRE.

First principle, avoid caustics.

Second principle, avoid grease.

Third principle, keep the part dry as a rule, and perfectly clean.

The only exceptions to the rule regarding caustics are mixed sores, with a minimum of induration, and exulcerated sores, which become sluggish and refuse to heal after induration has nearly or quite disappeared. In the first instance pure carbolic followed by fuming nitric acid is admissible, but the galvano-cautery, preceded by cocaine, is better.

The exception to the second principle is the application of iodoform ointment to sluggish or painful sores. The following formulæ will be found to be excellent, the odor of the iodoform being completely disguised. I attribute this property to the menthol, which, as far as I am aware, has not been elsewhere recommended for this purpose. Oil of mirbane may be used in lieu of menthol, but is more irritating and less effective. Where there is considerable pain cocaine and extract of belladonna may be added.

℞	Mentholis, . .	gr. v.
	Iodoformi, . .	ʒiv.
	Cetacei alb., .	ʒii.
	Cerati, q. s. ad. .	℥i.

M. Sig.—apply on lint.

℞	Oil mirbane, .	♏. iv.
	Bals. peru, . .	ʒii.
	Iodoform, . . .	ʒii.
	Vaselinæ, q. s. ad. .	℥i.—M.

The old-time black and yellow wash are not objectionable for cleansing purposes, provided the part be well dried thereafter and packed well with some absorbent powder. I prefer, however, a solution of the bichloride 1 : 500. A plan recommended for this application is to wash the part with a weak solution of common salt. Calomel is now sprinkled upon the part, and a small amount of nascent and active bichloride is thus formed. I have used this plan for condylomata quite successfully. The best absorbent is the powdered oleate of zinc—not Merck's, which is abominable, but Parke, Davis & Co.'s, which is really excellent—a useful combination is the following:

℞	Bismuthi subnit., .	ʒii.
	Ac. salicyl., .	gr. v.
	Zinci oleat., .	q.s. ad. ℥i.—M.

Simple calomel is useful, but not so good as the above. Turpeth mineral is a very desirable method of applying a mercurial in a dry form. Oxide of zinc and lycopodium are also very good, used in equal parts. The part may be kept dry by absorbent cotton. Cumbersome dressings must be avoided, especially such as require for their retention constriction of the penis.

Pronounced indurations often persist for months without ulceration, or after it has healed. Bathing in hot water, with frictions of hydrarg. oleat., five per cent., will dissipate them after a time. The easiest and best method is excision. I would recommend excision of all clearly-cut chancres upon the prepuce or integument. *Care should be taken, however, never to excise them until they have become stationary, else recurrence is almost certain.*

The roseola seldom requires attention; should, however, pigmentation be marked and lasting, hot baths, with frictions of twenty per cent. oleate, will be serviceable. In ordering the oleate always specify Squibb's. There may be others as good, but not to my knowledge, and I know there are none better.

Papules, tubercles, squamæ and other dry lesions can be controlled and rapidly resolved by applications of the following formulæ. Care should be taken in the selection of the proper strength,—blistering may result, and, although beneficial sometimes, causes the patient to lose confidence; there is great variation in integumentary susceptibility. The collodion preparation is the most likely to blister.

℞ Hydrarg. bichlor., grs. v.-xx.
Collodionis, . . ℥i.
M. Sig.—Apply with hair pencil.

℞ Hydrarg. bichlor., . grs. v.
Tr. benzion co., . . ℥i.
M. Sig.—Apply.

Tincture of tolu is also an excellent vehicle.

The results obtained by these preparations are often remarkable. They are of especial value in removing facial blemishes—they hasten removal of pigmentation very markedly. Their efficacy is easily tested by contrasting the course of facial lesions treated by them with that of other integumentary lesions upon the same subject.

Crusts and squamæ, if thick, are benefited by applications of ung. hydrarg. nitrat. The ammoniated mercury ointment is useful in some instances, but is not often sufficiently strong. Where the lesion is very obstinate, an occasional application of the pure acid hydrarg. nitrat. will hurry it up.

Ulcers require some care. Ointments of iodoform, hydrarg. oleat., ung. hydrarg., the citrine and white precipitate ointment, are all of service in different cases; one failing, another should be used. Occasional stimulation with argent. nitrat., or even the acid nitrate of mercury, may be required. Should ulcerations be attacked by phagedæna, Ricord's paste or the actual cautery may be used. My own preference is for the pure bromine. Applications of the potassio-tartrate of iron are useful in some cases—twenty grains to the ounce.

Nodes and diffuse osteo-periosteal swellings may be benefited by frictions of ung. hydrarg., hydrarg. oleat., and ung. iodinii co. I have obtained good results from hypodermics of a solution of the bichloride immediately contiguous to the swelling. A blister, followed by ung. hydrarg., is often efficacious in disposing of obstinate nodes. The tincture of iodine is also useful.

The obstinate headaches of both late and early syphilis, whether associated with cranial bone lesions or not, are benefited by frictions of the scalp with the hydrarg. oleat.—ten per cent. In obstinate cases a blister to the nuchia, followed by mercurial plaster, is quite effective. There are occasional cases of cephalagia associated with the cachexia syphilitica where the galvanic current is of great service.

Syphilitic iritis is greatly benefited by frictions of the brow and temples with the oleat. Care is necessary lest the ointment get into the eyes, as it is extremely irritating. Occasional bathing of the eye in a solution of the bichloride, 1 : 20,000, is of service. In case it becomes necessary to blister the temples, mercurial ointment should be applied to the raw surface.

Mucous patches and fissures of the mouth, if very painful, should not be cauterized until their irritability has been in a measure allayed; they then require cauterization. The best application is the acid hydrarg. nitrat.; in some cases, however, the nitrate of silver is better. Obstinate tubercular lesions and post-ulcerative thickenings should be destroyed by the galvano-cautery, as transformation into cancer is possible.(1)

Ichthyosis of the tongue requires complete destruction of the epithelium of the organ. This condition occasionally follows

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1 Vide Lang, Langenbeck, Weir, and a case of my own reported to the Mississippi Valley Medical Association, September 13, 1889.

syphilis, and is due to (1) the disease, (2) over-treatment with mercury and iodine, and (3) alcohol and tobacco.

Tertiary and destructive ulcerations are made cleanly and induced to heal by thorough applications of tr. benzoin co., with or without the bichloride—grs. ii. to the ℥i.

In irritable oral, lingual and pharyngeal lesions, the following is the best thing I know of:

℞	Ac. carbol.,	gr. x.
	Iodinii resub.,	gr. v.
	Menthol,	gr. x.
	Ol. eucalypti,	ʒii.
	Glycerite tannin,	ʒii.
	Boro-glyceride, q.s. ad.,	℥i.

M. Sig.—Apply with a brush.

If the practitioner doubts the healing properties of this formula, let him increase the strength of the iodine and carbolic acid a little and try the efficacy of the mixture in cervical endometritis; it is my routine application, and is very successful.

Condylomata and mucous tubercles disappear like dew before the sun under the collodion or benzoin and bichloride mixture. Remember that the parts must be kept clean and dry. Condylomata and mucous tubercles mean local irritation and filth, both of which are in great measure avoidable. Calomel and oleate of zinc are the best dusting powders for these lesions.

Concomitant herpes progenitalis is an occasional feature of syphilis; indeed, I regard syphilis as a frequent cause of herpes. The oleate of zinc is as near a specific for this condition as may be.

Alopecia is greatly benefited by the following:

℞	Hydrarg. bichlor.,	grs. xvi.
	Tr. canthar.,	ʒiv.
	Tr. capsici,	ʒii.
	Glycerinæ,	℥ii.
	Ol. ricini,	℥i.
	Sp. colognensis, q.s.ad.,	℥viii.

M.—Ft. lotion. Sig.—Rub in scalp night and morning.

℞	Hydrarg. biniodidi,	grs. xx.
	Ol. verbenæ.	♏x.
	Vaselinæ,	℥ii.

M. Sig.—Rub well into the scalp at bed-time.

I trust that this hasty and by no means comprehensive survey of the local management of syphilis may contain items of value to some who have neither time nor material for experimentation to determine independently the best methods of treatment. The items are, it is hoped, suggestive, to say the least, and therefore capable of being built upon clinically.

Opera House Block.

Correspondence.

A CORRECTION.

Editor Lancet-Clinic:

In his paper on "Points in the Right Direction" (Lancet-Clinic, October 19), Dr. H. M. Brown, referring to valvular disease of the heart, states that "the illustrious John Hunter, who suffered from that disease, died at the hands of an impudent lawyer, who sought to aggravate him upon the witness stand." For the sake of the truth of history, and to relieve the "impudent lawyer," who has sins enough resting upon him, from the charge of murdering the greatest philosopher of the medical world, a correction should be made. It was not upon the witness stand but in the Board room of St. George's Hospital that the observation was made which "one of his colleagues thought it necessary instantly and flatly to contradict. Hunter immediately ceased speaking, retired from the table, and, struggling to suppress the tumult of his passion, hurried into the adjoining room, which he had scarcely reached when with a deep groan he fell lifeless." Post-mortem examination showed that the mitral valves were ossified and the aortic "thickened and wanting pliancy," but it also showed more: cardiac atrophy, an atheromatous aorta, very extensive ossification of the coronary arteries, and an unusually thickened pericardium. All his life long John Hunter ill-brooked contradiction, had a violent temper, and must have been an exceedingly uncomfortable man to live with. The one philosophical trait that he did not possess was equability of mind. P. S. C.

Coroners' juries proverbially bring in curious verdicts. The latest is by a Pennsylvania jury; an embankment caved in on some railroad laborers, and the verdict was: "Died of gravel."

Society Reports.

ACADEMY OF MEDICINE.

OFFICIAL REPORT.

Meeting, September 23, 1889.

The President, WM. JUDKINS, M.D., in the Chair.

G. A. FACKLER, M.D., Secretary.

Pemphigus Vulgaris.

DR. B. M. RICKETTS presented a case, diagnosticated as pemphigus vulgaris, and of ten weeks' standing. Patient is now taking the Asiatic pill, having improved each time he was under the influence of arsenious acid.

The case is under the care of Dr. Skinner, of Hamilton. This eruption has involved nearly all of the surface of the body and extremities.

While he lives near a canal reservoir, where malaria prevails quite extensively; and while some claim that malaria plays a prominent part in the causation of this disease, I am not ready to settle upon it as being the cause.

He is somewhat emaciated and feeble, but able to be about quite a good deal.

The blebs in this case have varied from the size of a pea to that of a silver dollar. There has been severe itching, as might be supposed, from the lacerations of the cuticle, at various points.

This is the third time I have seen him, and I can say that I look upon it as being more favorable than I at first supposed.

The prolonged and accurate use of arsenic is almost to bullous eruptions what mercury is to syphilis.

This, together with care as to diet, will, I think, bring the case to a favorable termination.

DISCUSSION.

DR. RAVOGLI, from the manifestations present, was reticent to confirm the diagnosis of pemphigus. The typical eruption of the latter is the bulla, and in this case none are present. In pemphigus the bullæ are large, and seldom accompanied by erythema, except one species, *i. e.*, pemphigus erythematosus.

We have, however, a special bullous eruption, which Duhring describes as dermatitis herpetiformis. By him it was not so defined as to be limited from other affections.

Broag, of Paris, recalling the doctrines of Bazin, called this affection with the name of dermatitis polymorpha chronica a poussée recidivantes; but, however his work is very exhaustive, he fails to give the exact points of this disease. Unna calls the dermatitis herpetiformis of Duhring with the name of hydroa, of which he gives five species, maintaining as the first character of the disease the polymorphysmus. Hence we may have more likely a case of dermatitis herpetiformis polymorpha.

In pemphigus we have the bulla filled with white clear serum. In the case presented we see no blebs—simply small-sized excoriations, the result of vesicles and excoriated papules.

Pemphigus is a serious disease, nearly always fatal. At present the speaker, with Dr. Ransohoff, had under observation a distinct case of pemphigus. The patient is covered with blisters from head to foot. They come daily and in crops, each being the size of a goose or hen's egg, the smallest being the size of a walnut. After the epidermis is gone, only the malphighian layer is exposed. As the eruption is accompanied by itching we call it pemphigus pruriginosus.

In a case of pemphigus the patient at first does not lose his appetite, and there is no fever except at the new appearance of blisters; but the general health loses a great deal, and the patient becomes weaker, until he falls in a marastic condition.

DR. RANSOHOFF stated that Dr. Ravogli had expressed his views in casting doubts upon the diagnosis in the case presented. He had searched the patient carefully and failed to find any blisters present. He differed with the previous speaker, however, in regard to the absolute necessity of the presence of blisters. There can be no question but that in this case a number of small blisters had existed. This is evidenced by the number of excoriations, each about the size of a split pea, observed at the time. But there are too many other forms of eruption present, which will not permit a diagnosis of pemphigus. If it be the latter disease, there is no reason why so many papules and other forms of eruption should exist at the same time.

The speaker believed that this, in reality, was a case of dermatitis herpetiformis, as described by Durhing, and as it is generally believed to present itself. Of true pemphigus he had not seen many cases.

In the case reported some time ago by Dr. Ravogli, the woman was found in bed with all the symptoms of the last stages of typhoid fever. She had upon her body forty or fifty large excoriations. Why should she not have been the subject of septic processes and the symptoms be largely the result of sepsis? In the patient referred to by Dr. Ravogli this evening, they found occasionally slight elevations of temperature, and, in addition, considerable drowsy appearance. The pulse has increased to 116, the tongue is quite dry. The treatment consists of the application of iodoform. Whether in consequence of the treatment or not, the man has improved.

As a rule we do not find a man with pemphigus in its acute stage, walking about, as the man presented to-night. The cases observed thus far by the speaker have been of a very grave character.

Dr. B. M. Ricketts stated that about one week ago he had seen a blister about the size of a silver quarter on this patient. He has one about the size of a dollar upon the leg at the present time. The speaker had seen enough of the blebs to convince him that the disease is dermatitis herpetiformis or pemphigus.

He was not here to draw such lines as are drawn by some specialists, since it has not been satisfactorily proven that such differences as claimed do exist.

A blister denotes the same process, whether it be of the size of a goose-egg or pea. Its outline may vary, being round, oval as a rule, or, if composed of a confluence of several smaller blisters, irregular. This man has been debilitated.

Septic conditions take place in all eruptive diseases.

The speaker considered this a mild form of pemphigus. There is no reason for supposing that more than fifty per cent. of all cases should die. The majority run their course to a fatal or favorable termination in eight or ten months.

Rupture of the Liver.

Dr. E. G. Zinke reported the following case of a young man who, on the 22d of last June, came from Chicago to this city to attend the "Turn-fest." While stopping at Indianapolis, during the act of crossing the railroad tracks, he tripped and fell flat upon his right anterior side, landing with the hepatic region upon a rail. He was brought to Cincinnati and was seen by the speaker on the morning of June 22.

Patient was twenty-two years of age, of splendid physique and muscular development; had always been in good health and of good habits. He presented the picture of shock and collapse, due apparently to loss of blood. Features were blanched, pulse small and rapid, temperature subnormal. Pain in the umbilical region. The abdomen was tense, not particularly tympanitic. The diagnosis made at the time was internal hemorrhage, caused probably by rupture of the liver. The latter was based upon the fact that neither fecal evacuation nor urine contained blood, nor was there slightest hæmatemesis or hæmoptesis. There was not much tenderness over the region of the liver. The physician, Dr. Strue, of Chicago, who accompanied the patient, stated that his present condition was better than immediately after and since the accident. Thus it seemed as if hemorrhage had stopped for the time. The man was placed in the recumbent posture and cold applications made over the abdomen. His condition improved, and the case seemed to progress favorably up to about 10 a. m. June 24. By this time the speaker's diagnosis was seriously questioned and even ridiculed by professional busybodies. About noon of the same day, however, he was summoned and found that the man had been seized with violent vomiting. His pulse was almost imperceptible, temperature subnormal, abdomen distended, very tender to the touch and slightly tympanitic. It was evident that hemorrhage had again occurred and was still going on. Laparotomy was suggested and urged. The friends, however, refused to give their consent to operative interference. The man died the same day. The following is Dr. Holt's report of the post-mortem examination made by Dr. Strue, of Chicago:

Autopsy.—June 24, 1889.—W. P., æt. 22. Body that of a young white man, well developed and nourished. Autopsy nine hours after death. Rigor mortis well marked. Blonde hair and full blonde mustache; blue eyes; no marks of violence visible on the body. Abdominal distension quite prominent.

On opening the abdominal cavity there was a free escape of dark-colored blood, which, taken together with the blood that remained in the abdominal cavity, amounted to about 26℥.

Liver.—On the anterior surface of the right lobe of the liver and near its middle was an irregular, vertical line of rupture, running from above downwards and from left to right, and was about four inches in length. The edges of the wound were ragged, but were held a third of an inch apart, the gap being filled by coagulated blood. The depth of the rupture into the liver substance varied from one-half to one inch. There was comparatively little hemorrhage into the substance of the liver.

Liver tissue somewhat fatty, but the organ was of normal size.

Peritoneum.—Slightly congested but smooth; no signs of inflammatory changes. A large flat clot of blood was found adherent between the upper surface of liver over the seat of rupture and the adjoining parietal peritoneum.

No fracture of ribs was discoverable.

Kidneys.—Congested, otherwise normal.

Spleen.—Slightly enlarged and congested.

Lungs.—Marked œdema and hyperæmia on their entire area. No consolidation.

Heart.—Normal.

Brain.—Not examined.

Cause of Death:

(*a*) Predisposing: injury.
(*b*) Immediate: internal hemorrhage.

The speaker could not help believing that a laparotomy might have offered somewhat of a chance toward recovery. It seemed evident that the vomiting had caused a renewal of the hemorrhage by dislodging the clot that had formed and controlled the flow of blood from the wound. The resulting hemorrhage caused distention of the abdomen and a still further separation of the wound. If the abdomen had been opened when suggested all the serum, blood, and coagula could have been removed; and the gas, which distended the bowels, allowed to escape by puncture with a fine hollow needle. The speaker thought it possible that washing out of the abdominal cavity and proper drainage might have successfully stopped the hemorrhage and the case result in recovery. Again, the rupture might have been in a more favorable region, so as to permit of suturing. Cases are on record in which the liver was ruptured to a greater extent than in the case reported, and recovery took place, and though in some instances the patient died from other causes, there was evidence sufficient to show that the liver had healed.

A case is reported of a patient who suffered fracture of the spine and died three weeks after the accident. A post-mortem examination disclosed quite an extensive rupture of the liver, which had healed during this time.

DISCUSSION.

Dr. Ransohoff stated that about ten years ago he had reported a case of a man injured in a railroad accident. By a collision he had been thrown forward, showing, however, no external bruise. After the accident he walked half a mile, then fainted and died within twenty-four hours. Here there was not the remotest evidence of the injury sustained. Post-mortem examination showed that a mass of the liver, of the size of a fist, had been torn loose, and was lying in the abdominal cavity.

Dr. Zinke, in conclusion, remarked that he had neglected to state that upon his first visit he had urged the propriety of opening the abdominal cavity. Yet he desisted, because the most positive statements were made to the effect that the condition of the patient had vastly improved since the injury, and an apparent subsequent, though but temporary, improvement lent hope to a recovery without resorting to a laparotomy.

The speaker could readily understand the occurrence of rupture of the liver, whether by direct or indirect injury to the organ. But he could scarcely understand how a piece could be separated as reported by Dr. Ransohoff unless the blow was directly over the organ.

Meeting of September 30, 1889.

The President, Wm. Judkins, M.D.,
in the Chair.

G. A. Fackler, M.D., Secretary.

Laparotomy for Obstruction of the Bowels.

Dr. A. M. Brown reported the following case:

April 20 he was called to see a man fifty-seven years of age, suffering with obstinate constipation. No special symptoms pointing to a more serious condition existed. He was relieved by a large dose of calomel and cascara sagrada. A pill of aloin, strychnia and belladonna succeeded in keeping the bowels open. May 24 the speaker was again called, and found that the patient had had no fecal discharge for two days. A lump was discovered in the left iliac fossa, which could, however, be discussed by pressure. Treatment, similar to that in the first attack, was employed without avail. Large rectal injections of hot water to the patient in the knee-elbow position gave no relief. The tumor was now easily discernible and movable. On the third day Dr. Langdon was called in consultation. Copious hot-water injections were again tried, with no results. The same was true of large doses of sweet oil.

On the next morning a laparotomy was made. Passing his hand into the abdominal cavity, the speaker detected what appeared to be a fibroid growth in the neighborhood of the sigmoid flexure. The growth completely encircled the colon. This was expected, and the ends of the bowel united by the Lambert suture. The bowel was returned and the abdominal wound closed. The man rallied, but died twenty hours after the operation of shock.

He had complained of no pain. The speaker was inclined to the belief that during the suturing a filament of the sympathetic had been included, and resulted in the fatal shock.

The specimen was interesting from the fact that, although the growth completely encircled the bowel, the opening was still patulous, but had been plugged by an orange seed. The specimen with the orange seed in situ was exhibited.

DISCUSSION.

Dr. Langdon remarked that he had little of special value to add to the history of the case. The condition of affairs had been clearly and tersely stated by Dr. Brown. There are two or three aspects of the case which, to his mind, possessed considerable interest.

First—As to diagnosis. It illustrates the fact that it is frequently impossible to make a diagnosis of an intra-abdominal trouble without an exploratory incision. In this case, at least, it was impossible. We had evident here the fact of an obstriction following another obstruction after a lapse of six weeks. This is not the ordinary history of a slow chronic construction. Everything pointed to an acute condition. The symptoms were the classical ones of volvulus. As already stated, the case illustrates the necessity of exploratory incision for diagnostic purposes.

Second—As to etiology. There existed a morbid, malignant growth, with a foreign body in close contact. The question arises: Did the orange seed cause the cancer? This would be difficult to determine. The speaker would not favor this view. The location of the difficulty was three or four inches above the rectum, where the sigmoid meso-colon is short, and where there is a bony prominence behind, upon which pressure may be exercised by fecal masses. It appears as if the growth preceded the introduction of the orange seed. The latter completely obliterated the lumen of the bowel, which at this time was about the size of a lead-pencil, and the seed was packed into the opening so tightly as to not even permit the passage of gases.

Third—Termination. Several causes contributed to the fatal ending. The age, starvation for seven or eight days, the depressing effects of the anæsthetic in addition to the ordinary shock, and, presumably, the greater or less involvment of filaments of the sympathetic nerve, may be regarded as such causes. The last is a matter of observation in abdominal operations.

The question arises whether it would not have been better to operate early. The speaker thought that it would. Yet he had seen another case with similar symptoms, in which an early operation would have increased the dangers. The speaker referred to the case of a young man suffering with obstruction of the bowels. Diagnosis of fecal impaction was made. His general condition was good, but great mental depression was the man's feature. After eight days, during which he took nothing but a quart of olive oil, it was perceived that the mass gradually traversed the colon and finally came away. Here, then, was a case in which an operation would have been a wrong method to adopt.

Dr. Holt, who had examined the tumor, declared it to be an adeno-carcinoma.

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A moderate fee will be charged for such examinations. Leonard Freeman, M.D.,
J. C. Oliver, M.D.,
Otis L. Cameron, M.D.,
F. O. Marsh, M.D.,
Curators and Microscopists.

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THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

TERMS, $3.50 PER ANNUM IN ADVANCE.

☞All letters and communications should be addressed to, and all checks, drafts and money orders made payable to

DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, October 26, 1889.

The Week.

A WOMAN'S HOSPITAL AND MEDICAL COLLEGE.

The noblest of all charities are those that spring from a resolve to bring sunshine to hearts that are unable even to promise a return in kind; that kind of charity which reaches down very low, and takes from the human *débris* a form, shakes off the accumulations, bathes, feeds, clothes and lays upon a bed the victim of disease and death; that kind of charity which points to the sick man's Friend and Redeemer as the motive power of its work. The building and endowing of hospitals and other public institutions for the relief and care of the helpless is a product of Christian civilization, and not only that, but of very recent origin. Fifty years ago a free hospital for the very poor was almost, if not entirely, unknown. Now they are springing up in all large cities, and into them are flowing the "dregs of humanity, whose debased habits and tastes are revolting to the sacred instincts of the better classes." Out of this condition has grown the feeling that the more respectable, refined or pious poor and afflicted should be separated from the vicious and degraded patients, especially in the cases of women and children.

This cannot be accomplished in hospitals under the patronage of the State or municipality. This need has found expression in the establishing of private or denominational institutions, under the patronage of Christian philanthropists.

It is now proposed to establish in this city a hospital for women and children, under Protestant care and influence, and where patients can be cared for and attended by nurses of their own sex. Connected with it there will be organized a medical college for the education of lady physicians. The great success of such physicians in the field of Foreign Missions; the increasing demand for these noble workers, and the great number of women who are ready to enter the field, but are held back for want of means to obtain an education, has led to the proposal to establish, in connection with the hospital, a medical college, with the special object of educating women for such work. We are told that several eminent physicians have signified their purpose to aid in the work.

A goodly number of philanthropic ladies of wealth and prominence, under inspiration imparted to them by Mrs. L. J. Lyle, have entered into the plan with an enthusiasm that promises success. The Presbyterian Ministerial Association of this city has cordially approved the scheme and plan of operation so far as it has been unfolded to them, and many of the members are giving it their aid and influence. In such action the Association says: "Many of the ladies constituting the Board of Managers are known to us, either personally or by reputation, as ladies of the highest social and Christian standing, while the medical staff includes many physicians of great eminence and ability."

The matter having been brought to the attention of the Synod of Ohio, in session at Toledo, was referred to a committee, who made the following report, which was adopted, viz.:

"The committee to which was referred the proposal to establish in Cincinnati a hospital for women, and connected therewith a medical college, one of the special features of which will be the training of women for foreign mission work, under Protestant care and influence, having carefully examined the plan, so far as it has been laid before them, regard it as a worthy enterprise, and heartily commend it to the sympathy and generosity of the churches.

"E. R. MONFORT,
"REUBEN TYLER,
"WM. MCKIBBEN,
"S. F. SCOVILLE,
"THOS. LEGGETT,
"ROBT. ALEXANDER."

This noble institution, to become a blessing to the poor and afflicted, must have liberal support. It can not be built by resolutions or endorsements without practical help. And when the help comes we will have cause for lawful pride that Cincinnati has added another noble charity to the long list of her philanthropic institutions.

We reprint the above article in full from the *Herald and Presbyter* of October 23 in order that our readers, who are always interested in all that pertains to hospitals and medical colleges, may be informed of what we regard as a very ill-advised movement, originating, no doubt, from the purest of motives.

First, the editor of the *Herald and Presbyter* gives the impression of an admixture of patients in public hospitals that in reality does not exist. We suppose the syphilitics and those suffering from other venereal diseases are the ones referred to as the "dregs of humanity" that are so revolting to the sacred instincts of the better classes; he should have known before writing the article that "the dregs" suffering from venereal diseases are placed in separate wards from the refined and pious poor, who don't get sick in that particular way. In the common, public wards there is always maintained a discipline that absolutely prevents all immoral acts and behavior. An unheralded visitor is as little likely to see or hear evidences of vice or wickedness in any form in a hospital ward as in any private home of any class of people. The matter of piety and religious belief are not inquired into, any more than of those we momentarily meet in the street. The care and professional treatment is the very best that money and skill can give. If, as inferred from the reading of the article in the *Herald and Presbyter*, Christians have heretofore established separate hospitals for those of their own individual denominations, in order to be kept apart and effectually segregated from the wicked of the world who are sick, the motive has been purely selfish, and forcibly reminds us of the Pharisee whose phylacteries were broad, standing in the temple in an attitude of prayer, thanked the Lord that he was not like other men. If our inference is correct, we believe the *Herald and Presbyter* has very much mistaken the motives that governed the Presbyterian men and women who have given of their abundance to establish hospitals and similar charities.

We are told next that "it is now proposed to establish a hospital for women and children where patients can be cared for and attended by nurses of their own sex." Well, now, there is not a public or private hospital in all this fair land of ours where sick women and children are in the care of male nurses.

Further, we are told that "connected with it there will be organized a medical college for the education of lady physicians, with the special object of educating women who desire to become foreign missionaries." We have to say of this that the editor of the *Herald and Presbyter* has been sadly misled by a person afflicted with a misguided judgment combined with a plentiful lack of information.

In this city there is established and in excellent running order a fully-equipped woman's medical college, having a faculty of very reputable teachers, where any woman possessed of a sufficient preliminary education may receive a superior medical education, and having pursued the prescribed course, passing a satisfactory but fair examination, will receive the degree of Doctor of Medicine.

Not only so, but the medical profession has ever prided itself on its forwardness in all Christian charities. Where and whenever there has been a young man or woman, that in good faith has come to a regular medical college in this city to acquire an education to fit themselves for the foreign mission work, and were dependent on the church for support, they have been freely and gladly received. Without money and without price, such students have been furnished with every possible facility for acquiring a thorough training and medical education. We repeat that this has been done by the colleges without the requirement of a fee or charge of any kind. Could or would this new enterprise do more? We are not given to tooting our good works in public, but the occasion seems fit for us to say, still further, that young men have not only been freely educated by the medical colleges of Cincinnati for the foreign mission work, but such young men having attained their medical degree, members of the local medical profession have cheerfully given them generous and complete outfits of cases of costly instruments, needed books and every other part of a practicing physician's armamentarium. To-day these same colleges—and there are no better—and these same local doctors—and there are none more liberal—stand ready and willing to do this thing over and over again.

Hence, we say most emphatically, there is no demand in Cincinnati for an additional medical college for either men or women, and certainly not for the purpose designated in the *Herald and Presbyter*.

If the Presbyterians, in their wisdom, see fit to establish a hospital, the doors of which are to swing equally wide for saint and sinner, we will gladly, heartily say, God speed them in the work. We will give them all the encouragement and sustentation that is in our power.

Recently the Methodists have established in this city a Deaconesses' Home, and in connection with it a hospital. The method adopted and plan pursued meet with our warmest commendation, and in which nothing pleased us more than the opening in this hospital of a ward to be entirely supported by the Presbyterians. Out of which has grown such a feeling of amity and real good will as to make us cherish the hope that some fortuitous circumstance might occur that would make these two great religious denominations come together and unitedly found and sustain a great local charity, that would be a credit to themselves, our city, and the religion they profess.

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

The meeting of this association will be held in Nashville, Tenn., November 12th, 13th and 14th, 1889. The following programme is announced.

PAPERS.

The President's Annual Address. Hunter McGuire, M.D., Richmond, Va.

Report of Gynecological Work, with Especial Reference to Methods, R. B. Maury, M.D., Memphis, Tenn.

Direct Herniotomy, with Cases. W. O. Roberts, M.D., Louisville, Ky.

Open Abdominal Treatment. B. E. Hadra, M.D., Galveston, Texas.

The Abortive Treatment of Acute Pelvic Inflammation. Virgil O. Hardon, M.D., Atlanta, Ga.

The Importance of Early Treatment of Inflammatory Affections of the Uterus. Wm. C. Dabney, M.D., University of Virginia.

The Relation of the Nerve System to Reparative Surgery. Thos. O. Summers, M.D., Jacksonville, Fla.

Concerning the Causes of Frequent Failure of Relief of Reflex Symptoms after Trachelorrhaphy. W. F. Hyer, M.D., Meridian, Miss.

Cranial Surgery. DeSaussure Ford, M.D., Augusta, Ga.

The Treatment of Ectopic Pregnancy. W. H. Wathen, M.D., Louisville, Ky.

Laparotomy in Extra-Uterine Pregnancy. Waldo Briggs, M.D., St. Louis, Mo.

Laparotomy in Intestinal Obstruction. C. Kollock, M.D., Cheraw, S. C.

Epithelioma of the Penis, with the Report of a Case. D. W. Yandell, M.D., Louisville, Ky.

An Experimental Study of Intestinal Anastomosis. Jno. D. S. Davis, M.D., Birmingham, Ala.

Operative Interference in Ascites. Hugh M. Taylor, M.D., Richmond, Va.

Observations Pertaining to Pregnancy and Parturition. W. Duncan, M.D., Savannah, Ga.

Puerperal Convulsions. Jno. Herbert Clairborne, M.D, Petersburg, Va.

Some Remarks upon Aneurisms, Relating More Especially to their Surgical Treatment. F. T. Meriwether, M.D., Asheville, N.C.

Coccygodynia and its Treatment. Hunter P. Cooper, M.D., Atlanta, Ga.

The Improved Cæsarean Section *versus* Craniotomy. W. . D. Haggard M.D., Nashville, Tenn.

Conservative Surgery in Injuries of the Foot. J. T. Wilson, M.D., Sherman, Texas.

Gun-shot Fractures of the Femur. Jno. Brownrigg, M.D., Columbus, Miss.

Tropho-Neurosis as a Factor in the Phenomena of Syphilis. G. Frank Lydston, Chicago, Ill.

Trophic Changes Following Nerve Injury in Fractures, with a Report of Two Cases. Wm. Perrin Nicholson, M.D., Atlanta, Ga.

Treatment of Malignant Diseases of the Rectum. W. T. Briggs, M.D., Nashville, Tenn.

Gynecology in its Relations to Obstetrics. W. L. Robinson, M. D. Danville, Va.

Observations Based Upon an Experience of Seventy-five Abdominal Operations. Jos. Taber Johnson, M.D., Washington, D. C.

Twenty Consecutive Cases of Abdominal Section. L. S. McMurtry, Danville, Ky.

Triple Amputations. J. B. Luckie, M.D., Birmingham, Ala.

The Treament of Contracted Bladder by Hot Water Dilatation. I. S. Stone, M.D., Lincoln, Va.

Complications Occurring in the Clinical History of Ovarian Tumors. Richard Douglas, M.D., Nashville, Tenn.

What Kind of Instruments does Modern Antiseptic Surgery Demand. J. W. Long, M.D., Randleman, N. C.

Intestinal Anastomotic operation with Segmented Rubber Rings, with some Practical Suggestions as to Their Use in Other Surgical Procedures. A. V. L. Brokaw, M.D., St. Louis, Mo.

Leucocythæmic Tumors as a Neoplastic Exponent of Rheumatism and their Similarity to Malignancy—with a Case. W. Locke Chew, M.D., Birmingham, Ala.

What Civilization is Doing for the Human Female. A. Lapthorn Smith, M.D., Montreal, Canada.

The Achievements of Modern Surgery. J. Ewing Mears, M.D., Philadelphia, Pa.

The Treatment of the Pedicle in Supra-Pubic Hysterectomy. Wm. M. Polk, M.D., New York.

Pus in the Pelvis and How to Deal with It. Joseph Price, M.D., Philadelphia, Pa.

OFFICERS.

President — Hunter McGuire, M.D., LL.D., Richmond, Va.

Vice-Presidents—W. O. Roberts, M.D., Louisville, Ky.; Bedford Brown, M.D., Alexandria, Va.

Secretary—W. E. B. Davis, M.D., Birmingham, Ala.

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Chairman Committee of Arrangements—Duncan Eve, M.D., Nashville, Tenn.

Members of the medical profession are cordially invited to attend.

ACADEMY OF MEDICINE.—

Monday evening, October 28, Dr. J. J. Kane will read a paper on "Gunshot Wounds of the Hip-Joint."

CINCINNATI MEDICAL SOCIETY.—

October 29, DR. W. L. MUSSEY, "Case of Popliteal Aneurism." Annual Election of Officers.

FOR SALE.—A lucrative established practice for sale, with good two-story frame house and office, stables, etc., all in good order. Possession given immediately upon sale of premises, and good will of practice to go with sale. Terms reasonable. Cause for selling—wish to retire. Address,

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HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending October 19, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st.	1	..	...	..	...	..	1	..	...	..	...
2nd.	...	..	...	..	...	..	2	..	...	..	...
3rd.	...	..	...	..	...	..	4	..	...	..	...
4th	...	..	...	..	...	..	...	..	...	..	...
5th	...	..	...	..	...	..	1	..	...	..	...
6th	...	..	...	..	...	..	1	1	...	..	...
7th	...	..	...	..	...	..	...	..	...	..	...
8th	...	..	...	..	...	..	...	..	...	..	...
9th	...	..	...	..	...	..	...	..	...	..	...
10th	...	..	3	..	...	..	4	2	...	..	...
11th	...	..	...	..	...	..	2	1	...	..	...
12th	...	..	...	..	...	..	4	..	...	1	..
13th	...	..	...	..	...	..	2	..	...	..	...
14th	...	..	...	..	...	..	...	1	...	..	...
15th	...	..	...	..	...	..	2	..	...	..	...
16th	...	..	1	..	...	1	1	..	...	..	...
17th	...	..	...	..		..	1	..	...	..	...
18th	...	..	...	..	...	..	5	..	...	..	...
19th	..	..	...	..	...	..	2	..	...	..	1
20th	...	..	...	..	...	..	...	..	...	..	1
21st	.	..	.	..	...	..	...	..	..	..	...
22nd.	...	..	...	..	...	..	1	..	...	..	...
23rd	..	..	...	..	...	..	4	..	...	..	...
24th	...	..	...	..	...	..	2	..	...	.	...
25th	...	..	...	..	...	..	1	1	...	..	1
26th	...	..	...	..	...	..	3	..	...	..	...
27th	...	..	...	..	...	..	1	..	...	..	...
28th	...	..	1	..	...	..	3	..	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	3	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	1	..	...	..	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	..	...
Marine H..	...	..	...	..	...	..	...	..	...	..	...
Totals.....	1	..	5	..	...	1	51	6	...	1	3
Last week.	4	..	3	1	...	..	47	12	...	4	2

The following is the mortality report for the week ending October 19, 1889.

Cholera Morbus	1	
Cerebro-spinal Meningitis	2	
Diarrhœa	1	
Dysentery	2	
Entero-Colitis	2	
Other Zymotic Diseases	15	—23
Cancer	4	
Phthisis Pulmonalis	14	
Other Constitutional Diseases	3	—21
Apoplexy	2	
Bright's Disease	3	
Bronchitis	4	
Convulsions	3	
Heart Disease	5	
Liver Disease	1	
Pneumonia	7	
Other Local Diseases	13	—38
Old Age	1	
Premature Birth	3	
Other Developmental Diseases	4	— 8
Accidental	10	
Homicidal	1	
Suicidal	1	—12
Deaths from all Causes	102	
Annual death rate per 1000	16.32	
Deaths for corresponding week in 1888	100	
Deaths for corresponding week in 1887	104	

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 30 observers (embracing 26 counties) show the following diseases to prevail for the week ending Friday noon, October 18, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Tonsillitis	15	28
Typhoid Fever	10	20
Bronchitis, acute	10	19
Diarrhœa	9	18
Rheumatism (acute	9	11
Pleurisy	8	8
Intermittent Fever	6	15
Dysentery	6	7
Pneumonia	6	7
Diphtheria	5	12
Typho-Mal. Fever	4	14
Remittent Fever	4	6
Scarlet Fever	3	8
Cholera Morbus	3	4
Whooping Cough	2	4
Erysipelas	2	2
Consumption (Pul.)	0	0
Cholera Infantum	0	0
Croup, membranous	0	0
Measles	0	0
Puerperal Fever	0	0
Cerebro-Spin. Men.	0	0

REMARKS.

Diphtheria reported by observers at Maineville, Moscow, Summerfield, Russelville, and Elmore. Reported by health officers: Toledo, 19 cases, 3 deaths; Columbus, 17 cases, 1 death; Ironton, 1 death; Moscow, 4 cases, 1 death; Xenia, 8 cases, 1 death; Mansfield, 3 cases, 1 death; Bloomingburg, 1 case; Findlay, 1 case; Akron, 3 cases; Hamilton, 5 cases, 2 deaths; Youngstown, 1 case, 4 deaths; Zanesville, 2 cases, 2 deaths; Middletown, 3 cases; Wellston, 2 cases, 2 deaths; Fostoria, 2 cases.

Scarlet Fever reported by observers at Rocky River, Crestline, Forest, and Maineville. Reported by health officers: Youngstown, 4 cases; Akron, 2 cases; Clarington, 2 cases; Defiance, 2 cases; Woodsfield, 4 cases; Canton, 6 cases; Perrysburg, 2 cases; Seville, 4 cases; Bucyrus, 2 cases; Crestline, 3 cases; Toledo, 1 case.

Typhoid Fever reported by observers at ten places, by health officers at seven places.

C. O. PROBST, M.D., Secretary.

Selected.

INTERNATIONAL CONGRESS OF PSYCHOLOGY.

[*Med. Press and Circular.*]

The Psycho-Motor Origin of Delirium.

M. Ritti, of Charenton, read a paper on the psycho-motor origin of delirium, in the name of a colleague. As those of language, the troubles of the intellect should be attributed to sensorial and motor lesions; there is no form of mental disease in which these latter are more manifest than that of mania. It is by depression of the psycho-motor energy that the patient feels himself isolated from the outside world, and by their animation in the state of excitability, irritability, that ideas of greatness, strength, etc., seize the individual. M. Gamier said that although he agreed in part with what had been read, he could not help remarking that in general paralysis or softening of the brain, the second and third period ideas of grandeur, etc., attain their maximum, although the motor power is diminished to its lowest ebb. M. Regis spoke on four cases of hypocardrical lypemania, and gave the distinct signs of lypemania and softening of the brain, which he enumerated as follows:—The delirium of softening of the brain presents a character of absurdity, stupidity, and incoherence. It appears suddenly, is mobile, and inconsistent, the patients speak without conviction, and do not contradict, and are slow to speak on their sufferings. While the reverse obtains in lypemania — the patient discourses constantly on his affection, seeks to convince those around him, and gets angry when contradicted. In softening of the brain, the delirium takes sometimes the form of greatness, ambition, etc., but nothing of that sort is witnessed in lypemania. The delirium of softening of the brain is not benefited by morphia, as in the case of the other form. The former comes on between the ages of thirty-five and forty-five, while lypemania is observed at a more advanced age, and more frequently in women than men in the ratio of eight to twelve; ideas of self-destruction, voluntary mutilation, apprehension of not being able to die, etc., are frequent, but for many years the intellect remains intact and the mind lucid. The examination of the viscera gives generally a negative result, but a saburral state of the tongue, inertia of the stomach, constipation, a frequent pulse and progressive wasting is often witnessed. A cure is possible.

Pathological Anatomy of Softening of the Brain.

M. Burnet spoke on this subject, and insisted particularly upon the *début* of the lesions of the cerebral cortex (*pericerebritis*), upon the relative immunity of the isthmus and upon the presence of adherences. As to the treatment, he said he obtained good results from the administration of large doses of bromide, an ounce or more in the twenty-four hours! Professor Ball said that on the faith of English authors he believed that adherences were often wanting, but his own experiences proved that they were never absent, and he now considers them to be characteristic of the malady. The doses of bromide of potassium given by the last speaker appeared to him to be enormous; he always considered one drachm daily to be quite sufficient. M. Lemoine thought that one of the most frequent causes of softening of the brain was to be found in rheumatism (hereditary). M. Christian said that syphilis was regarded as a predisposing cause to softening of the brain, but he could not accept it, as the researches he had made in that direction did not bear out that opinion. M. Ballel considered that the question raised by M. Christian was far from being determined, and he proposed that an international committee be appointed to inquire more fully into the *role* of syphilis in the disease of the brain in question.

Responsibility of the Drunkard.

M. Motel read a paper on this subject, in which he said that a man was not responsible for a crime committed during the delirious period of drunkenness, nor when the crime was committed by a man suffering from chronic alcoholism, whose brain has undergone those changes which compromise the regular functions of the organ. The responsibility was attenuated in those persons naturally of a weak intellect and who take drink badly; it is also extenuated when it has been proved that the man got drunk unintentionally. On the contrary, to those who got drunk with intention, and where alcohol was taken to give courage in order to commit a crime, no extenuation should be allowed. In conclusion, the author proposed that in presence of the great increase of alcoholism in France, and the terrible crimes committed under its influence, the Goverment be invited to take steps to guarantee society against criminal dipsomaniacs, and for that purpose to establish special asylums for the treatment of habitual drunkards. The assembly adopted this proposition unanimously.

THE MACEWEN RADICAL CURE OF HERNIA.—This method of treating hernia has been of late conducted with much zeal by our Russian colleagues, and now that it has passed through the stage of criticism we may accept its utility to be limited by three of the leading men in surgery to inguinal hernia alone. Krajewski, Warsaw, relates the case of a female servant, æt. 30, who came to him in great distress, to have a crural hernia cured, as she was unable to perform her duty from the discomfort and size. Krajewski did not follow MacEwen's method nor his modification in this case, but rather selected Ketly's form of treatment. The skin and fascia were cut through and the sac reached, which had all its surroundings of fibrous tissue separated in the canal; the bowel being replaced, the peritoneal sac is then caught and twisted, and through this is passed a catgut suture, which passing upwards is brought out above Poupart's ligament.

After this the fascia pectinea and skin are both sewn up to Poupart's band. On the third day after the operation, owing to the great pain in the part operated upon, the canal was opened, when the fold of peritoneum was found to be necrosed. The dead part being removed the wound soon healed up, and on leaving the hospital there was a large hard swelling over the site of the crural canal. Ketly, Krajewski, and Obalinski consider MacEwen's operation unsuited for the radical cure of femoral hernia, owing to the thickening or pad in the site of the ring being insufficient to support the replaced bowel. Ketly endeavors to overcome this difficulty by twisting the sac of peritoneum at the neck and fastening it with sutures as above, which forms a thickening in the site of the femoral opening, and thereby obviates the forming of a pouch at the femoral opening.

Krajewski's own method is to sew up the peritoneal sac, turn the abdominal opening down, over which is placed the cushion of peritoneum. Obalinski ties up the neck of peritoneal sac with a ligature, then folding up the sac attaches it with sutures behind the external opening of the canal to form a cushion. He, however, warns the operator not to tie the ligature too tight, or the operation may fail. A modification of Ketly and Obalinski's operation has given the best results. If the sac to be inclosed be too large it is much safer to remove a part of the sac before enclosing it.—*Med. Press and Circular.*

MICROBES IN THE MOUTH OF A HEALTHY PERSON.—As the finding of these microscopical animalculi form a very important feature in our diagnosis, it is necessary to guard against the danger of fallacies to which this form of examination is open. It is not surprising to find such micro-organisms in the mouth when it is considered how few of us escape with sound teeth, or are entirely free from some form of stomatitis. Netter has just completed a lengthy inquiry on the subject, in which he tells us that in 20 per cent. of the cases of healthy persons examined he found Fränkl's *pneumonia cocci*, in five-and-a-half per cent. the streptococci, and four-and-a-half Friedländer's *capsulated bacilli.* Now the pneumococcus, though its name suggests, is not the only disease in which this micro-organism is found, as it is common to broncho-pneumonia, endocarditis, meningitis, etc., while the strepto-coccus is not yet limited. The mouth he considers a favorable locality for cultivating the microbe, owing to the reaction of the saliva being slightly alkaline and favorable to its development When this canal has been kept in a state of alkalinity for a long time the microbes will flourish, but if the gastric juices become too acid the microbe is destroyed. Breathing and feeding favors this region for their cultivation, and Netter does not allay our fears when he tells us that a child in early life develops these in the mouth, whence they pass by the Eustachian tube to the ear and set up otitis, or may be the origin of meningitis by passing to the coverings of the brain by the middle ear. If the breathing tract be healthy the germ may be resisted, but if accidents of cold or abrasions take place the germ becomes dangerous. In this way he accounts for the attacks of definite diseases, as measles, scarlet fever, diphtheria, etc., which are only secondary infections. Another suggests that the virility of the germ will depend much on a few unknown factors, as the variability of the microbe or its activity, and the meteorological changes which may greatly modify its action. One practical hint may be derived from his labor, that we should always keep the mouth disinfected in order to protect the other orifices leading out of it.—*Med. Press and Circular.*

TERTIARY SYPHILIS AND THE CONDITIONS FOR ITS DEVELOPMENT.—At the International Congress of Dermatology and Syphilography the question of the day was, the relative frequency of teritary syphilis and the favorable conditions to its development. M. Neumann, the president, said that in his experience, the most efficient causes of tertiary manifestations are, insufficiency of treatment, constitutional vices, tuberculosis, scrofula, scorbutis, etc., and a certain phosiological condition rendering the individual incapable to resist any morbid influence. Dr. Drysdale said that the proportion of patients treated without mercury, who arrived at the tertiary period, was 8 per cent. It seemed to him that mercury had a certain prophylactic influence against the tertiary invasion, and that was why he had abandoned the treatment without mercury which he had followed for some years, yet he could not admit with that distinguished authority, Henry Lee, that it was possible to arrest the disease almost always by calomel fumigations. M. Mauriac gave his impressions received from twenty years' practice, and said that in acquired syphilis tertiary symptoms do not necessarily follow, as in 80 cases, at least, out of 100, it is possible to avoid them. When they do appear, it is generally between the third and sixth year, and in the following order of frequency: the skin, the mucous membrane, and the subcutaneous tissues. Syphilitic nodes are not so frequent as formerly. Amongst the internal or visceral manifestations of the disease, cerebral syphilis is the most frequent and most dangerous, after which comes that of the nasal and pharyngeal tracts, while the liver, lungs, kidneys, and heart, are but rarely affected. M. A. Fournier produced the notes of over three thousand cases which he had treated, from which it resulted that of all the organic symptoms, the nervous system was the most frequently affected by tertiary syphilis. M. Haslund, of Copenhagen, described the conditions which favored the development of the tertiary period. Complete absence of treatment of the second period, insufficient mercurial treatment, alcoholism, pre-existence of marsh fever. Simultaneous existence of another grave affection, congenital syphilis, or infection at an early age, extreme poverty, and intolerance of the patient for mercury. M. Balzar (Paris) drew the attention of his colleagues to the necessity of exploring thoroughly the vagina for secondary symptoms, when all external manifestations had disappeared. Frequently hidden in the folds of the mucous membrane, papulæ, or indurated ulcers can be discovered.—*Med. Press and Circular.*

THE REDUCTION OF HERNIA DURING COUGHING.—It is an undoubted fact that coughing will produce or bring down a hernia; it is therefore somewhat surprising to hear that coughing may be useful in the reduction of hernia. M. Vandenabeele, however, has frequently found that hernia, which had resisted attempts at reduction by taxis alone, yielded when the patient was directed to cough during the manual efforts to compress the sac. M. Vandenabeele's observations included both inguinal and femoral herniæ, and were not confined to either sex. He believes that during the act of coughing the hernial ring dilates somewhat, and that if well-directed taxis is employed just at the right moment most cases will yield.—*Lancet.*

DR. WILLIAM PORTER concludes his paper on hemorrhage of the larynx as follows:

1. Laryngeal hemorrhage may occur from simple local conditions.

2. Unless associated with other and more positive symptoms, it is not indicative of pulmonary lesion.

3. It is possible, through the passing of blood from the larynx into the lungs, that pulmonary disease may be incited.

4. Care should be taken to distinguish between pulmonary and laryngeal hemorrhages, not only for the sake of more exact treatment, but especially because of the more favorable prognosis that may be given in many cases of the latter condition.—*N. Y. Med. Journal.*

A SOLVENT FOR DIPHTHERITIC MEMBRANE.

By William C. Wile, A.M., M.D.,

OF DANBURY, CONN.

[*New England Medical Monthly.*]

The following case will illustrate the value of a new solvent for diphtheritic membrane, which I fear is not fully known to the profession.

James B., an American, twenty years old, was taken with diphtheria on the 10th day of May of the current year. When I first saw him I found all of the characteristic symptoms of this grave disease. Both tonsils were covered with a tough, grayish mass, so pathognomonic of diphtheria, with all of the constitutional symptoms well marked. I put him on the bichloride of mercury, one twenty-fourth of a grain every three hours, gave a brisk cathartic, and locally ordered a gargle composed of equal parts of sulphocalcine and water to be used every hour. The next morning when I saw him there was but a thin coating over the tonsils, and all of the symptoms were better. On the morning of the 12th there was a still further improvement and the membrane was all gone. The bichloride was given at longer intervals, and everything went along nicely, the gargle being used only two or three times a day, and then simply as a prophylactic. On the 15th he took a cold, and I was sent for hurriedly in the evening. I found that both tonsils, uvula, pharynx and the whole vault of the mouth was completely covered with a thick diphtheritic deposit. I had never seen a case of diphtheria which had relapsed get well, so I gave a very unfavorable prognosis, deeming it an impossibility for the patient to recover, with such an extensive deposit present. I, however, increased the bichloride to every two hours, and commenced painting the membrane over with a camel's hair brush every fifteen minutes with an undiluted solution of sulphocalcine, besides having him use the half and half gargle every half hour.

The result was simply marvelous. The membrane commenced to fade, and in twenty-four hours there was scarcely a vestige left, and recovery was assured. While the patient made a slow and tedious recovery, he did recover, and is well and hearty to-day. I regard this one of the most remarkable cases of my experience, and I believe that sulphocalcine saved his life.

Treatment of Tuberculosis in Children.—According to Dr. Jacobi, arsenic is a remedy of much usefulness in the treatment of tuberculosis in children, but it is necessary only to administer the drug in small doses. A young patient, for example, could take every day, and that for weeks or months, two drops of Fowler's solution. This dose should be diluted in a sufficient quantity of water, and given three times a day after meals. If any signs of saturation supervene, the dose should be withheld for a time. A second remedy, of almost equal value in these cases, is digitalis. Under the influence of this drug the contractility of the heart muscle is strengthened, and, consecutively, the arterial pressure is increased, and the rapidity of the pulse diminished. The general effect of the increased arterial pressure is to favor the nutrition of the tissues. The choice of the particular preparation of the drug is a point of some moment. Oftentimes the infusion and the tincture are badly borne by the stomach; digitaline, on the other hand, is an inconstant preparation; thus the fluid extract is most to be recommended, either in pills or in capsules, and this can be dispensed with other drugs, such as narcotics or iron.—*Med. Press and Circular.*

Paraldehyde as a Hypnotic.—Mr. Morgan Finucane, Assistant Medical Officer, Hants County Asylum, believes that in paraldehyde we have a perfectly safe, and if given in large enough doses, a very effective hypnotic. The usually known dose is practically useless, anything less than one drachm and a half producing little or no effect. The immediately observed effects are quiet and refreshing sleep, the average being seven to eight hours; on waking the patients do not feel the effects produced by certain other drugs, *e. g.*, headache, drowsiness and dryness of the mouth. The heart and pulse are increased in frequency and force, the general effect being that of a diffusible stimulant. In all forms of maniacal excitement with extreme restlessness, and in cases of restlessness with dementia, whether paralytic or otherwise, paraldehyde is of the greatest use.

The value of the drug is especially seen in cases such as general paralysis, where hyoscyamine is obviously wrong, and opium is often contra-indicated owing to the presence of renal disease.—*The Lancet.*

THE TELEPHONE AS A CAUSE OF EAR TROUBLES.—As civilization advances, new diseases are not only discovered, but are actually produced by the novel agencies which are brought to bear on man's body and mind. The increase of insanity throughout the world is unquestionably due to the "storm and stress" of our crowded modern life, and almost every addition which science makes to the convenience of the majority seems to bring with it some new form of suffering to the few. Railway travelling has its *amari aliquid* in the shape of slight but possibly not unimportant jolting of the nervous centres; the electric light has already created a special form of ophthalmia; and now we have the telephone indicted as a cause of ear troubles, which react on the spirits, and indirectly on the general health. M. Gellé has observed, not in women only, but in strong-minded and able-bodied men, symptoms of what we may call "aural over-pressure" caused by the condition of almost constant strain of the auditory apparatus, in which persons who use the telephone much have to spend a considerable portion of each working day. In some cases, also, the ear seemed to be irritated, by the constantly recurring sharp tinkle of the bell, or by the nearness of the sounds conveyed through the tube, into a state of over-sensitiveness which made it intolerant of sound, as the eye, when inflamed or irritable, becomes unable to bear the light. The patients suffered from nervous excitability, with buzzing noises in the ear, giddiness, and neuralgic pains. In addition to these subjective symptoms, M. Gellé in some cases found objective lesions, such as a sub-inflammatory condition of the membrana tympani. A similar condition of things is often seen in persons who spend a large portion of their lives amid the jar and crash of machinery. All the trouble speedily vainshes if the ear is allowed a sufficient measure of physiological rest; this it can only obtain by the cause of the evil being withdrawn. The victims of "telephone tinnitus," if we may so baptize this latest addition to the ills that flesh is heir to, seem all to be of markedly nervous organization, and the moral may be drawn that such persons should not use the telephone. Mr. Edison has already done something to increase the plague of "nerves" which afflicts our generation, and, if his brilliant career as an inventor is not cut short, there can be little doubt that he will do yet more.—*British Med. Journal.*

CEREBRAL ABSCESSES AND THROMBOSIS.—Dr. Otto Korner has collected the experience of different authors on this subject, and finds that cerebral abscesses and sinal thrombosis is more frequent on the right side than the left. Out of 31 cases of cerebral abscess 18 were on the right side, while only 12 were on the left; and one on both sides, arising out of ear affections. Of a total of 67 cases of cerebral abscess arising from every cause, 39 were right-sided, 25 were left and 3 bilateral. Of a total of 61 cases of thrombosis in the sinuses, 35 were on the right side and 26 were on the left. In 23 cases of meningitis exotitide 17 cases were on the right and 6 cases on the left. In a total of 151 cases of brain affections 90 were in the right half and 57 in the left, while 4 were bilateral. The apparent explanation of this preponderance of right side affections over left seems to arise from the cranial formation and blood supply, as the fossa sigmordea of the transverse suclei of the right side is wider, and has a greater pressure on it than on the left. The separating bones between the cavity and the mastoid cells are also thinner on the right than the left.—*Med. Press and Circular.*

MORPHINE INJECTIONS.—M. Huchard, in his fortnightly notes on therapeutics, points out how necessary it is, after giving a hypodermic injection of morphine, to maintain perfect silence in the room where the patient is lying. Morphine, far from suppressing sensitiveness like chloroform, rather tends to exalt the excitability and particularly the liability to disturbance from slight noises. This peculiar exaltation of excitability is most marked in the frog, but may also be noted in other animals and in man, though the fact does not appear to have received proper attention hitherto. The failure of morphine injections to procure sleep is, in the majority of instances, due to neglect of this simple precaution.—*Med. News.*

HYPNOTIC SUGGESTION AND ITS TECHNIQUE.

By Benno Von Steinmetz, M.D., St. Louis.

[*Weekly Medical Review.*]

I do not intend to write a dissertation on hypnotism, nor explain the phenomena itself, but I wish to call attention to this very important, and, in America, much neglected aid in the treatment of disease. My experience is not extensive enough to claim for this means of treatment the results obtained by the masters in the Old World, but the short time which I have devoted to it has enabled me to perceive its advantages. My success in some cases, coupled with the fact that no work in the English language exists on the subject, has led me to write the following pages, in preparing which I have received material aid from the works of Bernheim, Charcot and Baierlacher, and I hope that they will receive the kind attention of the profession.

The novelty of treatment by suggestion and the complete deviation from the common routine treatment are the reasons why some patients look with suspicion upon the proposition of the physician to relieve their sufferings through this agent, and refuse to be treated by it. The greater majority of patients, however, will submit to the influence, if they are told that there will be no injurious sequelæ, that they will feel no worse on awakening, and that if hypnotic sleep can be produced, they may possibly be cured, or at any rate greatly benefited by it. Bernheim recommends as an effective means to convince such obstinate patients of the harmlessness of the procedure, to hypnotize another patient in their presence.

The position in which the patient is best hypnotized depends on circumstances. If the patient comes to the office, he is best placed in a reclining easy chair, to facilitate sleep; if he is at home, the act is best performed in the recumbent position in bed. The main point to be observed in hypnotizing is to bring the subject into such a position that he will be aided in falling to sleep.

Two methods of producing the hypnotic sleep are employed; Braid's method, which consists in having the patient fix his eyes upon a shining object, a polished metal surface or ground glass, for a longer or shorter period, until the gradual fatigue of the optic nerve will produce hypnotic sleep in some persons. This method has its drawbacks, because by the constant fixation of the gaze on a polished surface, an over excitation of the nerve centers may be occasioned, which as has been observed in several cases, is followed by headache, vertigo, and convulsions.

For therapeutic purposes the method advocated by Liebault and Bernheim, of Nancy, is indicated, in which the hypnotic sleep is produced by suggestion. This method has the decided advantage, that it is entirely harmless, and that none of the disadvantages above mentioned are induced. This manner of suggesting sleep has the greatest similarity to lulling a baby to sleep. As a mother would say to her child: "Baby, close your eyes and go to sleep," which is generally successful, we must in like manner picture the sleep to the grown patient. We begin with that part of the body which in falling to sleep is first affected—the eye. Bernheim tells the patient to fix his eyes on two of the operator's fingers, at the same time he suggests sleep in the following words: "Your eyes grow dim, the eyelids feel heavy and are closing; they are completely closed now, and cannot be opened again; you feel a heaviness in your arms and in your limbs; your hands are motionless, your perception is gone, sleep is coming," and in most cases the hypnotic sleep is then an actuality. To produce the hypnotic sleep, however, it is not necessary in all cases to adhere closely to the foregoing sentences; all that is necessary is that we speak to the subject of sleeping, and if possible in a dozy and sleepy voice. We must always keep in mind that the desired object is to produce sleep and nothing else, and in most cases the hoped-for result will be accomplished. Every physician using this treatment will formulate his own method of proceeding, and here, as in everything else, practice makes the best teacher.

The majority of persons are easily hypnotized, or at least placed in a kind of stupor, which makes them susceptible to suggestions. Some are not so quickly brought under its influence, while in a minority of cases only, the experiment fails altogether. When I first began to experiment with hypnotism, I failed to produce sleep, although I tried it on a great many persons, beginning in my own family. I nearly gave it up, thinking that I could never succeed, when on a Sunday afternoon, a boy, æt. twelve years, accompanied by his father, came to my office to have a sebaceous cyst removed from his scalp. "This is my last chance," I thought, and placing the boy on the operating chair, in a comfortable position, I began to speak to him of sleeping, told him that he would go to sleep, and at last I succeeded in my object. I kept on speaking to him, telling him that I would remove the cyst and that he would not feel any pain during the operation. I then made an incision into the tumor and removed it, talking to the boy all the while, sewed up the wound and then told the patient to wake up. He opened his eyes and looked astonished when I told him that the operation was ended. He assured me that he had not felt a particle of pain and could only be convinced that the ordeal was over by my showing him the tumor and the suture-line.

There is an old adage that nothing succeeds like success. I experienced this after my first success, and with renewed interest and hope I continued my experiments, and succeeded in hypnotizing persons, whom I could not influence before. I attribute my former failures to lack of confidence on my part, and my latter success to the establishment of that element. Since my first success I have tried it on twenty-seven patients, and have succeeded in influencing sixteen of these. This proportion is not equal to Bernheim, who in his work *De La Suggestion et de ses Applications a la Therapeutique* has but from five per cent. to ten per cent. refractory patients. But his success must be attributed largely to his greater experience. I recommend this work to all who wish to employ hypnotism and the treatment by suggestion, but it has not been translated into English to my knowledge.

The wide-spread belief that only hysterical persons can be hypnotized, or that they are more easily influenced than healthy persons, is, according to Bernheim and Liebault, completely erroneous. My own experience seems to verify their opinion, because I failed in three hysterical patients. Hysterics and so-called nervous persons, are, on account of the continual restlessness of their brains, only with great difficulty hypnotized, and many of them cannot be influenced at all. The so-called "Grande hysterie" of Charcot is an exception. Persons accustomed to subordinate their will to others are hypnotized with greater facility than those with which self-will is strongly developed. Sex does not seem to influence susceptibility to hypnotism, and men are as easily hypnotized as women; the same can be said of the difference in the age of the subject, although children are to some extent more easily hypnotized than adults because their brains are used to subordination and obedience; their sleep, however, according to the observation of Bernheim, is never so profound as that of adults. If a child once overcomes the fear which some children have regarding the physician, it is an easy matter for the operator to produce sleep by "soft soothings" to the child, at the same time closing his eyes and assuring him that sleep will soon come.

The beginning of the hypnotic sleep, as well as the first signs of its approach, differ with the individuality of the patient. Some subjects begin to blink after the first few words are spoken, both eyelids close and sleep is attained in a few seconds. In others we find the usual signs of sleepiness, the eyelids slowly droop, and sleep comes a little after. Others again will look for a long time straight at the poised fingers of the physician and only close their eyes and sleep after being told to do so. In some patients it is difficult to tell whether sleep really is obtained or whether it is only simulated, and only the trial to suggest catalepsy will usually clear up the doubs. Even this means will fail sometimes, because catalepsy cannot in all cases of real hypnotic sleep be obtained, as we will see later on, and the only true test is the experienced eye of the careful observer.

The fixation of the fingers or any other object, is not essential, according to Bernheim and others, but I have found it a great help in concentrating the attention of the patient, and in this way facilitating the object at hand. I use for this purpose a small horseshoe magnet which seems to impress the patient that its peculiar magnetic power is exerting its influence upon him, and makes him less resisting.

In some cases, however, it is more difficult to produce hypnotism. Bernheim suggests different expedients to overcome this impediment. Where, for instance, gentle persuasion does not succeed, he recommends to say in a commanding voice: Sleep! and often success will crown the effort. Others do not close their eyes, under the impression that they must fix them upon the fingers or magnet as long as possible; in these cases it will also often have the desired effect if the operator commands them: Sleep! and at the same time closes their eyes gently. Others, again, will need slight rubbing of the eyeballs, at the same time closing their eyelids gently and suggesting sleep.

Some persons cannot be made to sleep, but only a kind of stupor is obtained, which we may call a light slumber, and the attempt to suggest catalepsy is followed by the opening of their eyes, and the declaration that they did not sleep at all. In these cases special precaution must be taken and they must be continually addressed by the operator, because with the discontinuance of the monotonous talk they will open their eyes and the performance must be repeated. It is also of advantage to have the room as quiet as possible and to prevent any direct light from striking the eyes of such patients. With other, more susceptible persons, it is not necessary to be so scrupulous in this respect; even loud noises in the room will not disturb their sleep. Care should generally be taken to prevent any sudden loud noise like the report of a gun or the slamming of a door, because the hypnotized person may be suddenly awakened and complain of headache.

Bernheim recommends to deepen the hypnotic sleep by movements of the hands of the operator along the body of the subject, beginning at the forehead and ending at the feet.

Hypnotic sleep has been divided by Liebault and Bernheim into different degrees; Liebault has divided it into six and Bernheim into nine different phases. Bernheim's division seems to me more to the point in acquainting the beginner with the different phenomena of hypnotism, and I have therefore made a short sketch of these divisions:

First Degree.—The subject does not show any catalepsy or anæsthesia, neither does he have hallucinations nor sleep, in the proper sense of the word; he will deny having slept, and only acknowledge a certain drowsiness or stupor; and if we did not have proof that suggestions, even in this state, are effective, the influence obtained could be doubted.

Second Degree.—The subject has the same appearance as in the preceding state, the same negative condition; but it differs from the first degree in this, that the subject cannot open his eyes at will if it is suggested that he cannot do it. In this degree the influence is manifest.

Third Degree.—In this state the subject is susceptible to suggestive catalepsy; but this catalepsy is of a variable intensity, and we must not dare him to change the given position, because by an effort of will he will break the charm and change his attitude. Suggestions are also very effective in this degree.

Fourth Degree.—Suggestive catalepsy is more pronounced, and the subject cannot of his own accord break through the spell, as in the preceding degree.

Fifth Degree.—This is a deeper state of catalepsy, with or without automatic movements; in this state we can defy him to open his hand or bend his arm, and he cannot do it.

Sixth Degree.—In this degree the subject shows a certain automatic obedience; he can be told to get up and walk, and he will do so until he is told that another step is impossible for him to make, and in fact it is not possible to make him take another step. Some subjects are conscious of having slept, while others are in doubt about it, and others, again, deny having slept at all. Up to this degree the hypnotized persons are able to remember more or less plainly every word spoken to them by the operator, but in the following degree the remembrance is completely abolished.

Seventh Degree.—To this degree belong all those persons who experience amnesia, but in which no hallucinations can be produced; catalepsy, contractions, automatic movements and automatic obedience can be obtained, and that as well with closed as with open eyes.

Eighth Degree.—There is amnesia on awakening with regard to the majority of the phenomena observed in the preceding degrees; the patient is also subject to hallucinative impressions during the sleep, but there is no possibility of suggesting hallucinations after awakening.

Ninth Degree.—Amnesia on awakening, with possibility to realize hallucinations during the sleep, as well as post-hypnotic.

To this can be added that these hallucinations are more or less complete; that they can be projected upon certain special senses and not upon others; for example, upon the olfactory and auditory sense and not upon vision.

With many persons the most complicated hallucinations are realized to perfection.

Numerous other degrees could be established, founded upon the mental power of representation of each subject, but for general purposes those enumerated will suffice. Suggestive anæsthesia and analgesia, more or less complete, may be encountered in all stages of hypnotism, but is generally more frequent and more accentuated in the latter degrees, than those of profound somnambulism.

Any one who employs hypnotism practically will be surprised at the kaleidoscopical variety of manifestations appearing in different individuals under its influence.

For therapeutic purposes, it is of importance to not only deepen the hypnotic sleep of the patient, but to increase the suggestibility of the same, to subjugate his will-power and imagination to our own, and by this means cure the disease.

To obtain this result it is indispensable for the hypnotizing physician to try and produce all the different phases of the hypnotic sleep in his patient, as this will effect the supremacy of the physician's will over that of the patient. To produce catalepsy, we elevate the arm to almost any position, and we will often see it remain in the given position; we may tell him at the same time that he cannot lower the arm, and in many cases the arm will not move.

We must pay special attention to that part of therapeutic suggestion, which deals with the disease itself. There are a number of diseases, which are easily cured by verbal suggestion, but there are others, where we cannot simply tell the patient that he will be relieved of his disease on awakening, and where we must employ more energetic means. A case to the point is the following:

John K., twenty-seven years of age, working in a tobacco factory, came to me for the relief of pains in the region of his heart, and also at times painful breathing. I examined him carefully and could not detect any deviation from the normal in his lungs or heart. I proposed to cure him by suggestion, and he consenting, I hypnotized him, obtaining the fourth degree at the first séance, and suggested the disappearance of his pains. On awakening the patient felt relieved, but the next day he returned, having a recurrence of the pain and difficult breathing. After hypnotizing him again, I suggested to him in a loud voice that his pain would not only disappear, but owing to the perfectly normal state of his respiratory organs and heart, a repetition *could* not occur. It is now two months since this last suggestion was made, and up to date no recurrence has appeared, and the man feels perfectly well, whereas before the treatment by suggestion he had had continual pain for over a year, and had been treated by several physicians without result.

The success of verbal suggestion is materially increased by gently stroking and rubbing the diseased part of the body under consideration. For instance, in suggesting menstruation it is well to make slight pressure in the region of the ovaries; in neuralgia of the inner leg, to softly rub the painful place with the hand, at the same time suggesting the disappearance of the pain. In muscular rheumatism, where the pain on movement of the part is excessive, it is advisable to suggest to the patient that the movement of the part will not occasion any pain, the physician at the same time rubbing and moving the painful place or member.

A very important factor in the successful practice of therapeutic suggestion is not to try to accomplish too much at one sitting. We cannot remove headache, constipation, insomnia, and possibly some other disease in one séance, and if we try it we will fail to remove any of the ailments. In multiple neuralgias it is best to remove the pain of one particular nerve in one sitting, and only after the desired result is obtained to attack the remaining nerves, one after the other, and each in a separate sèance. In hemiplegia it is advisable to restrict the suggestion to single groups of muscles, and we must be satisfied to regain by suggestion in one sitting the use of the flexors or extensors of an arm or leg, and it would be useless and perhaps harmful to suggest that the arm or leg which, up to the time of suggestion, had been completely paralyzed, should be moved and employed like it was before the paralysis. Some hypnotisers only suggest the movement of one toe or finger at one time (in cases of the paralysis of the fingers or toes), and the success which they obtain proclaims the correctness of this manner of proceeding.

In conclusion, I will say a few words in regard to awakening the patient from the hypnotic sleep. It is sufficient in nearly all cases for the hypnotiser to say to the hypnotised: Open your eyes and wake up. In ninety-nine cases out of a hundred he will succeed in awakening the patient.

The duration of a sitting should not be extended over fifteen to twenty minutes, and before awaking it is a good practice to suggest to him that he will not have any headache or disagreeable sequela to his sleep.

Hypnotism, like so many other remedies, will, on becoming more popular, be grossly misused, and its performance should be restricted by law to physicians only; but in the hands of an experienced physician and for therapeutic purposes, it is my belief that hypnotic suggestion is absolutely without danger.

THE LANCET-CLINIC and *Obstetric Gazette* to one address one year for $5.

THE PHILADELPHIA POLYCLINIC AND COLLEGE FOR GRADUATES IN MEDICINE.—The Board of Trustees, in recognition of distinguished service rendered the institution as former Professors, have elected Richard J. Levis, M.D., Emeritus Professor of Surgery; J. Solis-Cohen, M.D., Emeritus Professor of Diseases of the Throat and Chest; Charles M. Burnett, M.D., Emeritus Professor of Diseases of the Ear; and Charles B. Nancrede, M.D., who was recently called to the Chair of Surgery in the University of Michigan, was elected Emeritus Professor of General and Orthopedic Surgery.

The report of the Building Committee was read, in which it was stated that contracts had been signed for preliminary work to the amount of $23,150. About $30,000 will be required to finish the building, and it was decided to push the building to completion as fast as donations for the purpose could be obtained. The overcrowded condition of the present building makes it necessary to use every exertion to move into the new building in the early spring, even though it be unfinished.

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A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, November 2, 1889. *WHOLE VOLUME LXII.*

Original Articles.

TREATMENT OF "NERVOUSNESS."

A Paper read by title before the Southwestern Ohio Medical Society at Cincinnati, October 10, 1889,

By Philip Zenner, A.M., M.D.,
Clinical Lecturer on Diseases of the Nevous System, Medical College of Ohio.

The various cases of functional nervous disease included under the term nervousness, some of which are of the hysterical, others of the neurasthenic, type, have much in common. The disease usually occurs in predisposed subjects, either from inherited or acquired disposition. There is often further cause for the outbreak of the disease in the circumstances or mode of life of the patient, in special systemic conditions, or in local pathological processes which act as reflex excitants of disease.

The indications in treatment are: the building and toning up of the nervous system, and the removal of causes of disease, wherever that is possible. A not unimportant part are the moral influences which can be brought to bear upon the patient.

The treatment begins with the first examination, and much of the physician's success depends on his mode of address at this time. It is only too common a custom to examine such patients cursorily, and then turn them off with the remark that there is nothing the matter with them. This is usually the worst method of treatment that could be adopted. It is true there is a class of cases where the disease is altogether in the imagination. They have been the victims of advertised nostrums or quack doctors. A few vagrant symptoms or indiscretions have been made the basis of morbid fears, now intensified to such a degree that the patient feels all the ills that flesh is heir to, and is preparing the soil for more serious disease. In cases of this kind the assurance of the physician that there is nothing the matter with the patient effects an almost instantaneous cure. A word almost lifts from life to death. I know of no place where the simple word of the physician works equal wonders.

But in our nervous cases, those with hysteria, neurasthenia, etc., a similar condition is not found: there is a basis of real disease. To tell such a patient that there is nothing the matter with him, when he is so fully conscious of his own suffering, is merely to make him believe that the physician does not understand his case, and, therefore, that his disease is the more serious, as it is obscure.

The physician should take quite an opposite course. He should make a very thorough examination of his patient,—every case of this kind deserves careful study—and then assure him that his disease is functional, and, therefore, curable; and that with proper management he will get well. Such an examination and statement on the part of the physician will, in itself, half effect a cure. For the manner of the physician will arouse the confidence of his patient, and his assurance create the expectancy of a cure. Confidence and hope are two powerful therapeutic agents, especially where the mind has such influence on the body as it has in functional nervous diseases.

The object of the physician in the management of such a case should be to discover the cause or causes active in the production of the disease and remove them wherever possible, and to prescribe the laws of hygiene and modes of life, as well as special therapeutic measures which may tend to strengthen his nervous system and combat his special ailments.

The most common causes—overwork, anxiety, grief, disappointment, and the thousand and one emotional storms so fraught with danger—need scarcely be mentioned. Such causes do not need the acumen of the physician to discern, nor has he usually the power of removing them, though his advice, even here, may be of benefit to his patient.

But he must make use of his skill in trying to find bodily ailments, which may be causes or partial causes of the nervous manifestations, and which are remediable. Any exhausting disease may be followed by nervous conditions, in which case the indication is the building up of the general health. In some instances syphilis, gout, lithæmia, or malaria seem to be the direct or indirect cause of the nervous disease, and, therefore, are to be dealt with in its treatment.

Very frequently there are local pathological processes which seem, in a reflex way, to excite or maintain the nervous symptoms. The most common of these are: obstruction of the nasal passages, eye-strain, stomach trouble, and disease of the uterus and of the prostatic portion of the urethra. Such diseases should be sought out and remedied. But it should not be forgotten that such local processes only produce general disease when there is a favorable soil for it; that the general treatment of the nervous system is always essential, usually more essential than the treatment of the local trouble, for the nervous disease often disappears while the local process remains; and, on the other hand, the latter may be cured without favorably affecting the nervous manifestations. The emphasizing of such facts is the more necessary because of the zeal often manifested in attributing nervous to uterine disease, often to the detriment of the patient. Judgment and caution are equally as necessary as skill in the wise management of such cases.

The observance of the laws of hygiene—the proper regulation of one's life—is the most important agency in toning the nervous system and removing the nervous symptoms. Injurious habits should be abolished; sufficient sleep, proper diet, outdoor exercise, adequate employment, and, as far as possible, an unexcitable but comfortable existence, are further essentials to a proper hygiene.

The hours of sleep should be more than necessary for healthy subjects, usually from eight to ten. The same is often true of food also, that a larger than the normal quantity should be supplied to build up the nervous tissues. But here we meet with the difficulty that the appetite is often impaired, and that more or less stomach trouble seems to be the rule in these cases. The latter is more frequently caused by, than the cause of, the nervous disorder, though it, nevertheless, tends to maintain and increase the nervous symptoms, and therefore requires careful management. But with the selection of diet most easily digested by the patient, such improvement is likely to take place that a sufficient quantity of food may be introduced. I may mention hot water as a therapeutic agent for this condition, which is often otherwise valuable in nervous cases.

The importance of outdoor exercise need not be dwelt upon, but the advice as to adequate employment requires careful study and wise discrimination. When there has been over-work, or nervous strain from worry, great responsibility, etc., rest should be ordered. But it must be remembered that a change of the kind of activity is often greater rest, both to mind and body, than doing nothing; that the latter often only affords time for introspection and morbid brooding, which are to be guarded against as much as possible. In fact, the physician must always keep in mind the moral influences which he can bring to bear upon the patient. He must try to keep his thoughts directed in healthy channels and away from himself, help to cheer and encourage him always, and in the purely hysterical forms, where the selfish element is predominant, attempt by well-directed words to make the patient feel his proper relations to others, and create a better moral tone.

Of special therapeutic measures, we will first mention hydro-therapy. This comprises hot, cold and temperate baths, medicated and mud baths, wet packs, douches, sponge baths, etc. The proper selection of the special kind of application must be determined by the result of their trial in the individual case. Such treatment can be carried out to the fullest extent only in institutions devoted to it, but to some extent it can be applied in every one's home. The simplest form of application, sponge baths, if frequently repeated, will very frequently be found to have a very invigorating influence, promote sleep and generally benefit the patient.

Hydro-therapy exerts a beneficial influence in nervous cases, partly as a calming agency, quieting the patient, promoting sleep, relieving pain, etc., but probably to a greater extent through its influence in increasing the action of the heart, hastening the circulation, and promoting tissue changes.

The next therapeutic measure to be mentioned, one of manifold application, is electricity. This agent is coming more and more in vogue in therapeutics, and it is especially in this class of cases that it proves beneficial. The faradic current is the one in most common use, and is often serviceable here. Applied in the form of general faradization it acts as a general tonic and improves the condition of the nervous system, while applied to more limited parts of the body it assists in relieving pain and spasm, and otherwise relieving nervous symptoms.

The galvanic current is less commonly employed, but it has a wider range of usefulness. Applied in the form of central galvanization it has a general tonic influence like general faradization. In cases of this kind I have often obtained great benefit from the application of a mild current to the head. It usually favors sleep in those suffering with insomnia, and otherwise quiets and tones up the nervous system.

Static electricity is very much less in use than either of the other forms of electricity, for the expense of the apparatus and the difficulties of keeping it in order put it out of the reach of many practitioners. Its range of usefulness is probably more limited than that of the galvanic current, but it often affords much aid in the management of these cases. The general application of the sparks all over the body has a rarely invigorating influence, the static head-bath usually calms the patient and favors sleep, while more limited applications of the sparks tend to relieve pain, spasm and the like. The moral influence of this kind of electricity is very great. Almost invariably when I have applied both the static and some other form of electricity, faradism or galvanism, to a patient, he expressed himself as having special faith in the "large machine," and this element of faith is often a valuable one in treatment.

The administration of drugs is, really, the least important part of treatment. Often patients are better off without any medicines. Those of a tonic character are the ones most frequently indicated—quinine, arsenic, strychnia, cod-liver oil, iron, etc. Remedies for the mere relief of symptoms—sleeplessness, excitability, etc. — are usually best omitted. The most valuable remedies of this type are the bromides. Given systematically for a short time they may put the patient in a better condition temporarily, so that by other means we may the more easily effect a cure.

In very bad cases, especially those of chronic invalidism, the method of treatment instituted by Weir Mitchell, consisting of seclusion, rest, massage, electricity, and over-feeding, will sometimes work marvels. The most is to be expected from this plan of treatment in those cases where, in connection with the nervous symptoms, there is considerable loss of flesh and impoverished blood, for we may hope that with the improvement of the latter, and the increase of flesh, the cause of the nervous disease may have been removed, and the disease itself vanish.

It is almost needless to mention as further therapeutic aids of great value, change of scene, mountain air, ocean voyage, sea baths, etc.

Herewith we have given a short sketch of what may, or should, be done in the management of functional nervous troubles. I must again emphasize the fact that very much of his success will depend on the physician himself; on the confidence he inspires in his patient; on his diagnosis of the case, his appreciation of other ailments which have to do with the development of symptoms, and his judgment in the management of these ailments; on his proper estimate of his man, morally and physically, so as to be able to direct him as to the amount and kind of work he should do, and bring those moral influences to bear upon him which shall encourage and help him; and on his wise management of the special therapeutic agencies that can be employed. As he understands and does these things well, will be his success; as he fails in them, he is likely to fail in the cure of his patient.

MORELL MACKENZIE recommends in acute coryza as snuff:

℞ Morphiæ sulph., gr. ii.
Bismuth subnitrat., ʒi.

SARCOMA OF THE OVARY WITH REPORT OF TWO CASES SUCCESSFULLY TREATED BY LAPAROTOMY.

A Paper read before the South-Western Ohio Medical Society at Cincinnati, October 9, 1889.

By CHARLES A. L. REED, M.D.
Cincinnati.

The diagnosis of ovarian tumor is not difficult, but to differentiate between the various varieties of ovarian growth before operation, is not only difficult but next to impossible.

There are several lessons of practical importance to be drawn from the foregoing observations.

In the first place, the comparative facility with which an ovarian tumor can be diagnosed imposes upon the practitioner the responsibility of determining, at the earliest moment, the character of his patient's malady. In the next place, the incurability of ovarian tumor by all conservative means, and the knowledge that delay can only engender complications, imposes upon the practitioner the responsibility of either doing or advising ovariotomy as quickly as arrangements can be made for the operation.

The latter portion of my preliminary observation, viz: the difficulty of differential diagnosis between various varieties of ovarian tumors, bears upon the question of early operation with emphatic pertinence.

I might say, that in ordinary benign cystomata, of small size, some delay in operation might be indulged in without serious results to the patient; but it is a lamentable fact that we are practically unable to determine whether we have in hand an innocent growth, or one possessing malignant characteristics.

It should be remembered that ovarian cystomata are frequently of mixed varieties, and often possess papilomatous and sarcomatous features. When this is the case, the danger of secondary infection is always imminent. In the earlier stages of development, however, these growths are removed with but little more difficulty than are the ordinary cysts, and their removal at an early stage, is a reasonable guarantee against recurrence: the same, however, cannot be said after they have attained considerable size and particularly after transplantation of sarcomatous or other cellular elements has once occurred.

The complete success of early operation as contrasted with the futility of delayed interference, is illustrated by the following cases:

CASE I.

Miss S.—aged 40, came under the care of Drs. Shaffer and Caldwell in May 1888. They found an abdominal enlargement which had been developing for the previous four months, and which they at once diagnosed as an ovarian tumor; immediate operation was advised, and was done June 4th, 1888, with the assistance of Drs. Caldwell and Marsh in the presence of Drs. Hall, Wm. Judkins and Shaffer.

An incision four inches long was made and a Tait trocar thrust into the sac. The rush of fluid into the receptacle beneath the table seemed very satisfactory until Dr. Hall called my attention to the fact that it consisted entirely of blood; this of course, indicated that we had hæmatocysts to deal with and that the underlying structure was probably malignant. The incision was now enlarged to seven inches, when it was found that the base of the growth was firmly fixed in the basin of the pelvis. All efforts at enucleation were futile. The cyst wall was therefore ligated in segments, close down to the margins of fixation, and the upper portion carefully cut away. All soft, friable tissue was carefully cleaned out of that portion of the capsule which was left in the pelvis. A drainage tube was inserted, the patient was put to bed in fair condition, made a prompt recovery and is now well.

A careful examination of the specimen by Prof. Caldwell, indicated that it was a papillo cysto-sarcoma, the solid portions of which weighed sixteen pounds.

In this case the intelligent conduct of the attending physicians, first in detecting the existence of the tumor, and next, in fairly railroading the patient into an operation, is chiefly responsible for the satisfactory result. They brought me a patient whose general health had not been compromised by the long continuance of a depressing disease; in whom the local trouble had not yet undergone degeneration, and in whom there had not yet occurred migration and secondary implanation of malignant elements.

The operation was indeed a sanguinary

affair, but the absence of anæmia which would have resulted at a later stage of the trouble, prevented disastrous results from that source. The absence of secondary infection, which would have resulted at a later stage of the trouble, has already given the patient fifteen months of immunity from recurrence. Her prospects for continued good health are now flattering.

In striking contrast with the foregoing is the following case, which although resulting in primary recovery, cannot but speedily succumb to the progressive invasion of a disease a timely interference with which might have resulted in its complete eradication.

CASE II.

Mrs. —, of Sidney, Ohio, aged 54, noticed an abdominal enlargement early in 1888. She consulted a homeopathic practitioner who failed to recognize the true state of affairs and permitted eighteen months to elapse before he was dismissed from the case and Dr. — was called in. He in turn called Dr. Silver who diagnosed ovarian tumor and advised immediate operation.

September 16th, 1889, with the assistance of the foregoing gentlemen I operated. The patient was pale, emaciated, and had a markedly anæmic pulse; the abdomen was so enlarged that she could not lie down without suffocation. An incision was made four inches long and a trocar inserted. The intracystic material was of such consistency that the trocar was found useless. The incision was now enlarged, the hand inserted and the consecutive cysts broken up. These were found to contain, some, thick gelatinous material, others, extravasated blood, and still others, pigmented masses of broken down granular tissue. The mass, when removed, fluid and all, weighed forty-seven pounds.

The peritoneum, both intestinal and parietal, presented a villous appearance, while along the inner surface of the abdominal wall, extending far above the umbilicus were clusters of pendulous cysts hanging from the peritoneum, varying in size from very small to a hen's egg, and containing colloidal material. There were a number of similar developments from the broad ligaments; as many as possible of these were ligated off. At one point, however, near the umbilicus, the subperitoneal deposit, instead of becoming pedunculated into the abdominal cavity, appeared to invade the abdominal wall, giving rise to an external protrusion, suggestive of a small ventral hernia; this was evacuated by incision. A drainage tube was inserted in the usual way and the patient made a prompt primary recovery, all surgical conditions depending upon the operation having been considered at an end on the fourteenth day.

There are some pathological features of this case that are of interest. The tumor was multilocular, a number of the cysts containing papiloma, and the majority of them were distinctly sarcomatous; the sacs very generally contained colloid, evidently the product of degenerative changes. Ordinarily, secondary infection in sarcomata takes place through the avenue of the circulation, the deposits occurring with greatest frequency in the lungs, and next, in the other large splanchnic organs. In this case, the deposits occurring beneath the peritoneum, indicated that the lymphatics were the channels of disbursement. The fact can be accounted for by the mixed character of the growth which was doubtless furnished with a relatively greater supply of lymphatics than are the pure sarcomata.

There is, however, an important clinical lesson to be learned from this brief narrative. In the first case, as has already been noted, was realized the full beneficence of surgery in dealing with what is at best a desperate condition: in the second was realized but a suggestion of that good which a more timely interference would have effected. In the first case was displayed intelligence in diagnosis, and decision in advice, that together comprise the highest compliment that can be paid to the honest practitioner; in the second, was shown by the early attendant, either incapacity in diagnosis or dishonesty in advice, which together comprise the opprobrium of medical practice.

The general deduction to be drawn from these two object lessons in surgery, is that in the possible malignancy of all ovarian growths, we have an emphatic appeal for early operation.

311 Elm Street.

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A CASE OF ALMOST COMPLETE NASAL STENOSIS PRODUCED BY THE USE OF THE GALVANO-CAUTERY.

Reported to the Academy of Medicine, October 14, 1889,

By ERIC E. SATTLER, M.D.,
Clinical Lecturer on Diseases of the Nose and Throat, Miami Medical College; Rhinologist and Laryngologist to the German Protestant Hospital, etc.

I report this case to-night not so much for its rarity as for the disastrous results which sometimes follow the indiscriminate use of the galvano-cautery in the nasal passages.

In February last I was consulted by a New York drummer, who came to get my opinion and advice for a long-standing chronic catarrh of the nose. On examination, in the usual way, the following condition was noted: A thickening of the septum in its anterior half, more so on the right than on the left side; a marked hypertrophy of both inferior turbinated processes, which, together with the thickening of the septum, tended to render the lumen of the nostril small but quite pervious. The case presented all the features of a chronic hypertrophic rhinitis. I advised removal of the hypertrophied tissue, but the patient, being unable to remain in Cincinnati at that time on account of business affairs, promised to see me when he again passed through the city and take up a regular course of treatment. In May he returned, a changed and down-hearted man. He was unable to breathe through his nose, his voice had lost its clearness of tone, he suffered from intense frontal headaches, his throat gave him trouble on account of its dryness and soreness. I elicited the following history from him: When he left Cincinnati he journeyed to the far West or Northwest, where his catarrhal troubles became so aggravated that he was compelled to seek relief. The doctor he consulted, probably recognizing the hypertrophic condition, advised him to have it burned away with the galvano-cautery, which he pictured to him as the easiest, quickest and best way to get rid of the "swellings in his nose." He consented, thinking that this statement coincided with my view, not knowing, however, what means I had intended to use in accomplishing my object. The galvano-cautery was used, according to the patient's statement, first on the right and then on the left side, *at one sitting*, and this procedure was repeated in the same manner the next day. In the interval the patient was advised to use vaseline "up his nose." He experienced considerable relief, and was overjoyed to think that his catarrhal troubles were at an end. As the "swellings" were removed, according to the doctor's statement, there was nothing more to do, and having business elsewhere he left the town about six days after the cauterization, and soon after became worse. This was about the middle of April. Breathing through his nose became more and more difficult, until at last he was compelled to breathe entirely through his mouth. I saw him again on the 18th of May, 1889, and found the following conditions present: Both the right and left nostrils were occluded by adhesions of the antero-lateral portions of the inferior turbinated processes to the respective surfaces of the septum; there was a small opening above and below this synechia on the left side and one above it on the right. I passed a probe through these openings, or rather through what remained of the natural lumen of the nostril, and found everything clear posterior to this band of adhesion, which was about one-half inch in a vertical direction, and probably one-eighth of an inch, according to my judgment, in an antero-posterior direction. I determined to break up the adhesion on the right side first, and let that heal thoroughly before touching the other. The small flat cautery knife, heated to a red cherry heat, was passed through the adherent mucous membrane as close to the septum as possible. Scarcely any hemorrhage resulted. The nostril was washed out daily with an alkaline spray, and the surfaces of the septum and inferior turbinated process were kept thoroughly separated by means of a cotton tampon, saturated with carbolated vaseline, which was frequently changed. Healing of the denuded surfaces took place very rapidly, that on the septum healing more slowly, however. The cicatrization that took place in the mucous membrane had a beneficial effect in reducing the hypertrophy of the turbinated process, and the lumen of the nostril was consequently larger than before the operation. The same course of treatment was followed on the other side, with equally good results.

REMARKS.

There is probably no remedy, surgical or medicinal, which has so wide a range of usefulness in diseases of the nose, when it is carefully, judiciously and scientifically employed, as the galvano-cautery. And yet it is constantly misused, as in the case reported above, as well as othe cases seen daily, will testify. In using the galvano-cautery, the part to be operated upon should be thoroughly illuminated and plainly visible to the operator. There should be no groping around in the dark, and no "miss-is-as-good-as-a-mile" business in its use. The septum should be thoroughly protected by one or the other specula now in use, that do not conduct heat readily. I use by preference Lennox Browne's hard-rubber self-retaining speculum, and have found it to meet all requirements.

The cautery knife or point should be heated to a red cherry heat only; a white gives rise more frequently to hemorrhages, and does not accomplish the purpose intended.

It should be introduced cold, and, when on the surface to be cauterized, heated. It should be withdrawn from the cauterized surface while hot: if removed when cooling it is apt to adhere to the burnt surface and is forcibly pulled away, which very frequently gives rise to hemorrhage and generally to a great deal of unnecessary pain.

Too great a surface should not be cauterized at one sitting, and the sittings should not be too close together. This was, in all probability, what gave rise to the results in the case reported. Too great a surface was cauterized at one time, and in withdrawing the cautery knife the septum, on account of the contracted lumen of the nostril, or the want of a proper speculum, or general carelessness, was also cauterized; the denuded surfaces were not kept apart, and the consequence was a union of these surfaces and an obliteration of the lumen of the nostril. With proper care such a result need never occur. From five to eight days should generally intervene when several cauterizations are to be made.

Of course, the question of deciding how and when to use the galvano-cautery in diseases of the rhinal mucous membranes does not come within the scope of these few remarks, and would require a special paper for its complete elucidation. For turgescence or simple swelling of the turbinated process I know of no better remedy than the galvano-cautery, properly employed. I never use the flat of the cautery knife in these cases, but introduce the knife at about right angles to the swollen process as far back as possible, and then draw it forwards in this position the whole length of the process and introduced through the tissue as far as the bone. In this way a horizontal linear cicatrix is produced, which ties down the erectile tissue. From two to four of these linear cauterizations are made, according to the nature of the case. Hemorrhage never results, or so little that it is scarcely noticeable. Pain is never great, even without the use of cocaine; in fact, I prefer to operate without it, as in these swellings the cocaine always brings on contraction of the erectile tissue, leaving us somewhat in the dark as regards the size and nature of the swelling. I have of late used a double-bladed cautery knife, which has some advantages over the single, in that it produces a somewhat broader and more permanent scar. [Knife is shown and passed around.]

For reducing hypertrophies either the cautery knife used with its flat surface or the snare can be used. Where the hypertrophy is at all marked I prefer to use the cold snare manufactured by Ford, with which I have had excellent results.

For polypi of the nose I also prefer this cold snare to all other means, at least until the various galvano-cautery snares now in use are perfected and can be used with some degree of surety and comfort.

It follows that the galvano-cautery has its fixed place in rhinological practice, that it will not suit every case, that there are different ways and means of using it in the great variety of rhinal cases, and that therefore the general, careless, and indiscriminate use of so valuable an agent as the galvano-cautery, must be severely condemned.

117 Garfield Place.

[For discussion see page 503].

There were twenty-one deaths from starvation in London last year.

THE MYOPIC EYE.

A Paper read before the Mississippi Valley Medical Association, at the Fifteenth Annual Meeting held at Evansville, Ind., September 10, 1889,

By DUDLEY S. REYNOLDS, A.M., M.D.,
Professor of Ophthalmology and Otology in the Hospital College of Medicine, Louisville, Kentucky.

The myopic eye may virtually be said to belong exclusively to the more highly civilized or cultivated class of men.

Hypermetropia is really the normal type of the nomadic eye, and although it has been asserted that no more than one in five thousand persons enjoys emmetropic or normal refraction, it is a remarkable fact that persons who in youth experienced no inconvenience in seeing distant objects, often discover before the completion of an ordinary course of educational training a gradual inability to distinguish distant objects.

A test of refraction shows in the primary department of the public schools a vast majority of children have hypermetropia. Later, emmetropia is more frequently found. After the fifteenth year of age amblyopia becomes common, and with it the myopic state of refraction.

Now why shall these changes occur? In what manner do we find the refraction of the eye changed from a state of hyperopia to that of myopia?

To understand this, we must bear in mind the associated action of the accommodative functions to the convergence of the optical axes brought about by the contraction of the internal recti muscles.

When the eyes are employed in looking at an object at twelve inches from the face, the amount of convergence brings about such a degree of flexion of the optic nerves as to create positive tension of the scleral wall on the temporal side, corresponding to the point of attachment of the optic nerve to the eyeball. This state of tension leads to hyperæmia or congestion, which is presently followed by active inflammatory changes in the sclerotic. The choroid, being closely united to the sclera in this region, early participates in the morbid process. Atrophy ensues; intraocular tension being augmented by the powerful contraction of the interni, the softened and inflamed sclerotic and choroidal structures yield to the pressure by bulging outward, thus forming a crescentic staphyloma posticum. In the earliest stages of this process the optic disc is hyperæmic, its marginal outlines are indistinctly seen, whilst a close examination of the temporal margin of the disk displays, in some cases, inflammatory infiltration. The eyes become morbidly sensitive to light, there is considerable obtunding of the acuity of perception, and the patient in this state usually seeks medical advice, not with the complaint that objects are seen indistinctly, but that the eyes are sensitive to light; there is a sense of aching, associated sometimes with frequently recurring attacks of pain in the orbits radiating throughout the frontal and temporal regions, at times extending to the occiput. These phenomena, without ophthalmoscopic examination and a test of the refraction of the eyes, are never properly interpreted. Finally, however, when relief is obtained, and the normal acuity of perception has re-appeared, it may be through the agency of a correcting lens, the patient not being instructed as to the proper distance for reading, returns to the old habit of holding the book at twelve inches or less from the face. The result is the myopic refraction increases and a change of glasses soon becomes necessary.

It is the history of myopia that it tends to increase, especially in early life; it may be said, almost continually before the thirtieth year of age, and frequently after that.

How does myopia become progressive? We have only to consider the primary causes of this state of refraction to understand the nature of the morbid process already hinted at and we shall see how readily it may be rekindled at any time.

In sewing-women, in watchmakers, and in those engaged in architectural and other forms of drawing, the eyes are subjected to continuous strain, and if objects are held sufficiently near to call forth an abnormal degree of convergence in the optical axes, myopia is the almost inevitable result.

If myopia equal to one-fifteenth be corrected with lenses, the patient should be instructed as to the use of the correcting lenses for distant objects only, and the danger of attempting to read through them. Reading in such cases as this must be done without glasses, and it must be done at a distance greater than twelve inches, else the myopia will increase continually, and presently obtunding of the perceptive power results, until finally the eyes are unable to distinguish small type.

It sometimes happens that myopia of high degree is not arrested by abstinence from the use of the eyes for near vision and the use of correcting lenses for going about. Other means, therefore, of arresting its progress have been sought. Pilocarpine and eserine have both proven to be valuable therapeutical agents. Progressive myopia, under proper restrictions as to the use of the eyes and with correcting lenses, has yielded at times to the action of strychnine, but it has been frequently found that this agent aggravated the local inflammatory process. It is therefore too dangerous to be trusted in such cases, however useful it may be in the early stages of atrophy.

There are many cases that go on in spite of these precautions, finally ending in detachment of the retina.

Glaucoma cannot be said to appear more frequently in the myopic eye than in those with other refraction, but the abnormal increase of tension in the myopic eye is not incurable during the progressive stage.

In 1874, one of the Magdalens in the house of the Sisters of the Good Shepherd, who had been doing fine needlework for a score or more of years, suddenly became amblyopic. The late Prof. Crowe, failing to relieve the headache and the photophobia, invited me to see the patient. She had absolute myopia, with a vision equal to $\frac{20}{200}$. She wore smoked glases and was led through the halls of the building for exercise, performing no duty requiring the use of the eyes. At the end of four days, no improvement having occurred and considerable intra-ocular tension being present, I performed iridectomy in both eyes at one sitting. The patient was permitted to make no use of the eyes until the first of the following September, more than two months after the operation. Vision was then found, after correcting the refraction, equal to $\frac{20}{50}$ in each eye. She returned to her work and did not complain again until November, 1880, when examination showed increase of the myopia, and a change of glasses developed an increasing loss of perception, vision at this time being equal to $\frac{20}{70}$. Another period of rest, and the use of pilocarpine in doses of one thirty-second of a grain every four hours soon brought about improvement. In July, 1889, this same person was examined for the purpose of determining the state of her eyes, without any complaint from her. She was found to have been constantly engaged at fine needlework and to possess vision equal to $\frac{20}{50}$.

I relate this case as an illustration of the effects of iridectomy in progressive myopia. It was an unpromising case, attended with relapses; it was in a person under restraint, not able to take outdoor exercise, limited to the uniform diet and habits of a person in a house of correction. The present result, fifteen years after the operation is, to my mind, brilliant. The notes of seven other cases offer similarly encouraging results, one of which is the following:

Miss G., aged twelve, myopia equal to one-fifth, vision equal to $\frac{20}{70}$, was ordered two pairs of lenses, one for reading and the other for general wear in the street. Four months later she returned with vision equal to $\frac{20}{100}$, morbid sensibility to light and a sense of soreness in the eyes and frequently recurring attacks of headache, together with great mental depression. She was operated on, and a small iridectomy scarcely more than one-sixteenth of an inch wide was carefully done in both eyes. Three months later she saw $\frac{20}{20}-\frac{1}{6}$. Eight years later her vision equalled $\frac{20}{40}$. A change of lenses to one-fifth and a half developed sight equal to $\frac{20}{30}$ in the right and $\frac{20}{20}$ in the left eye.

I have a series sufficiently interesting perhaps to warrant the mention of each case in detail, but I have already indicated the three principal agents for the arrest of progressive myopia: eserine, pilocarpine, and iridectomy.

That the myopic eye is always an unsound eye should be constantly borne in mind. That the myopic state of refraction is always the result of abuse should be universally known, for it concerns the entire human family.

ACUTE CORYZA is said to be cured by the inhalation of camphor fumes, the camphor being powdered and placed in a vessel containing boiling water. Ten or fifteen minutes suffice for the cure of acute cases if taken early.—*Canada Lancet.*

DIPHTHERIA.

By J. O. Jenkins, M.D.,
Newport, Ky.

With the exception of the summer complaints of children during the heated term, there is perhaps no one disease so fatal to early life as diphtheria. Season after season does it make its appearance in its favorite localities, not to leave them until many homes have experienced its scourging breath. Once considered as an epidemic disease, coming at infrequent periods, it is now recognized as having become acclimated and endemic. It follows the lines of travel very closely, particularly those of the water highways, and, when favorable soil and conditions are found, locates itself, more or less permanently. The towns of the Ohio Valley are rarely free from it, even during the hot summer months. Cases have been reported in Cincinnati, Newport, and Covington every month of the year. A moist condition of the atmosphere, with sudden changes of temperature, are most conducive to increased activity of the disease, attaining, as it does, its greatest energy in the early fall and late spring.

According to the Cincinnati Health Office Bulletin for 1888 and 1889, there were reported (LANCET-CLINIC): From October 1, 1888, to April 6, 1889, 499 cases and 137 deaths; per cent., 27 (fraction omitted). From April 6, 1889, to October 5, 1889, 598 cases and 169 deaths; per cent., 28. Making a total of 1,097 cases and 306 deaths; per cent., almost 28.

These figures for a single disease and its death-rate are somewhat alarming. When, however, the damage done during epidemics elsewhere are considered, the medical fraternity may congratulate itself that things are no worse. In Brooklin, N.Y., in the last quarter of 1880, 1185 cases and 483 deaths, or more than 40 per cent., were reported. Other cities and towns have sometimes had a death-rate from it of 50 per cent.

Physicians everywhere, recognizing the great gravity of the disease, have sought for a specific and tried many remedies and methods, hoping to secure a positive cure, only to meet with disappointment. Alcohol, ice, mercury, benzoin and the benzoates, salicylic acid and salicylates, turpentine, tar, carbolic acid, quinine, chloral, salt brine, iron, chlorine, chlorate potassium, nitrate silver, applications, inhalations, etc., etc., have all been tried, and while each and every one of the above may have cured cases, they have all signally failed in others. The remedies which have given the best results and satisfaction in the treatment are: tr. ferri, chloride, alcohol, mercury, sulphurous acid, and chlorate potassium.

In a late work on the subject (Billington and O'Dwyer: "Diphtheria and Intubation") the author advises doses of the iron preparation which seem almost unsafe, yet his reports show the value of heroic doses and careful attention to the condition of the throat and nares.

A method of treatment which has given me the greatest satisfaction and success with the disease for the past six years is briefly outlined:

Reliance is placed upon tr. chloride of iron and chlorate of potassium with pilocarpine, as:

℞ Tr. ferri chlor., . . ʒ iii;
Potas. chlor., . . ℈ i;
Pilocarpine mur., . gr. ss;
Syr. tolu., . . ℥ ii;
Aqu., . . . ʒ v.—M.
Sig: Teaspoonful every hour, for a child from two to four years of age.

No water is allowed for five or ten minutes after taking the medicine, thus getting a local as well as systemic action on the membrane.

In connection with the above is also given:

℞ Quin. sulph., .
Pepsin cryst., . } aa ℈ i.
Sulphuris lot., .
M.—Div. in chts. viii.
Sig.—One powder every fourth hour.

This powder is either given in a small quantity of water or blown into the pharynx with an insufflator. The iron mixture is omitted when the powder is given.

Very little change is ever made in the remedy until the membrane has disappeared, which will be in from three to five days.

The small dose of pilocarpine produces a copious salivation, and assists materially in loosening deposits. It may be necessary, however, to withdraw it and give digitalis, should the heart show signs of weakening.

This method has been pursued in twenty-six cases this year, from August 26 until October 17, with three deaths, a mortality slightly more than eleven per cent. Two deaths are not included in the foregoing, because the cases had been under domestic treatment and were hopeless when first seen, and died in the course of a few hours from septic poisoning.

As to the membrane, no attempt is made to forcibly remove it, neither are caustics applied, believing that such efforts are injudicious; an antiseptic wash for syringing and cleansing the throat and nose being all that is deemed necessary.

Other indications or complications are met as they occur. Bourbon whiskey is given in sufficient quantities as a stimulant throughout the attack, and infusion digitalis or glonoine for relieving suppression of urine should nephritis develop. As foods are given: Bovinine, meat broths, milk, powdered beef, etc., etc.; also tonics of iron, quinine and strychnia, and wine during convalescence.

During an outburst of diphtheria it is the duty of the physician to inspect the throat of every sick child to whom he may be called, for children seldom make complaint until the disease is well advanced. An early diagnosis may often be made and remedial measures applied which a day later would not be successful. Every precaution should be taken to prevent the infection of others; isolation of the patient must be insisted upon, but in the homes of the poor this is well nigh impossible. Convalescent children should not be allowed at school, and any scholar presenting symptoms of sore throat should be promptly sent home by the teacher for a physician's certificate. All burials of patients dying of the disease should be under the direction of the health officer; and not more than twenty-four hours should elapse between death and interment. The body should be placed in the casket with as little delay after death as possible, and no one permitted to open or unfasten the lid. The attendance of children at funerals is to be deprecated, and in many cases should be absolutely forbidden. All clothing worn during the last illness is best burned. The room as well as the bedding retained thoroughly fumigated with burning sulphur, and all articles and the floor well scalded with hot sal soda water.

At present these matters may be recommended to families, but they may not be forced to adopt them. When the health department of each state shall, in the matter of infectious and contagious diseases, have the powers of an autocrat, we may expect a great improvement in public sanitary conditions, laws, and results.

DIAGNOSIS OF PERICARDITIS.—M. Puis, of Vienna (cited in *La France Medicale*, No. 27), has drawn attention to the presence in pericarditis (with effusion ?) of a limited strip of dullness posteriorily extending from two fingers' breadth above the angle of the scapula to two fingers' breadth below the inferior border of the lung, and limited by the spinal column on the right. Bronchial breathing, bronchophony, and increased vocal vibration occur over this area. But when the patient is in the prone or knee-elbow position, the dullness is replaced by a tympanitic note, the bronchial breathing disappears, and friction becomes audible.—*London Lancet.*

FLATULENT DYSPEPSIA.—Dr. Eloy, *Therap. Gazette*, suggests the following:

℞	Creasot. pur. . . .	gtt. x
	Sodii. bicarb. . . .	ʒij.
	Acaciae. pulv. . . .	q. s
	Aquæ.	f. ℥v.—M

SIG.—A coffeespoonful one hour after each meal. If the dyspepsia be dependent upon gastric atony and insufficient gastric secretions, the following is suggested:

℞	Pepsin	ʒj.
	Creasot.	gtt. x.
	Bismuth Subcarb. .	ʒj.—M

Divide into chartas xxx, of which one may be given in a gelatine capsule.

CREOSOTE IN DIABETES.—Two cases of diabetes have been treated with excellent results by Valentini by means of creosote administered internally. In one case four drops per diem were given at first, this quantity being afterwards increased to ten drops. Under this treatment the sugar disappeared, and did not return when the patient began to eat starchy food. The other patient was given six drops per diem, and did equally well.—*London Lancet.*

Correspondence.

CHIT-CHAT FROM LONDON.

LETTER NO. IV.

LONDON, August 30, 1889.

Editor Lancet-Clinic:

The medical man who studies in part had he lived in the age of Pericles would never have had, like Hippocrates, the contemporary of Socrates and Plato, a statue of gold erected to him. Indeed, he would find it necessary to flounder with a succession of specialties ere he had practiced as such men often do in every city in the Union. The successful specialist in London has at some time or other been a general practitioner.

Tilbury Fox, who made himself famous as a dermatologist, once assisted a general practitioner. I remember him at the Farringdon Street Dispensary; also, at the Obstetrical Society, where he read a treatise "On Milk Leg," which was published in the Transactions. He also attended the practice at the Western Dispensary for Skin Diseases, when either Dr. Thomas Hunt or I was in the chair, and then took issue with me in my paper read before the Harveian Society, which dealt with disorders of the skin of a neurotic nature.

He was of medium size, delicate in health, a pallid countenance, a broad, low forehead, straight overhanging eyebrows, penetrating, and aggressive eyes. His face, encircled with hair, was oval, cheeks sunken, nose prominent but well formed, of the apprehensive cast; the mouth was large, thin lips, the upper one inclining in and tightly compressed. He had abundance of brown hair, which, brushed from his forehead, was brought with a wave over the temple. He wore a white-speckled, black satin scarf and dark superfine clothes. He was the embodiment of hard work. He stood out in front of his fellows like a soldier determined to achieve victory or die. He and Jabez Hogg both wrote at the same time on parasitic diseases of the skin, but the work of Tilbury Fox took the form of the first book he published on the subject. He was aided in practice by Sir Erasmus Wilson, whose "Vade Mecum" was the companion of my pupilage, and introduced me to Quain and Sharpey.

Wilson himself would willingly have remained a general practitioner, had not absolute poverty, as well as Thomas Wakley, editor of the *Lancet*, and Coroner for West Middlesex, forced him into a specialty. This finally had the effect in a party, in which his name was announced, of making every old Duchess, as well as the latest fashion of younger years, involuntarily scratch herself.

There are quite a number of dermatologists now living in London. To me the most interesting of them was Malcolm Morris, by reason of an unsuccessful attempt having just been made to blackmail him. He had been a successful general practitioner at Goole Yorkshire, and had sold his practice to a successor. Animated by a spirit that makes men great, he gathered his family around him and settled in London. He struck hard, fiercely, continuously, till fortune, no longer able to withstand his appeal, admitted him within her portals. In the zenith of success, with all the appendages—family, house, carriage, servants, influential friends, and liberal patients, that attend upon a distinguished physician, he was assailed cruelly and covertly, by persons who are usually the tools of discarded detectives, whose business it is while in search of plunder to uncover their neighbor's nakedness. Persons as filthy and infectious as the rags cast from a lazzaretto, lounged at the corner of Harley street, followed his carriage in a cab, made themselves execrable, and life to him unbearable. At length the chance came. He seized the miscreants and brought them to trial.

Rather than prosecute such persons in a criminal court, where there would be such a social difference between accuser and the accused, in the boasted equality before the law, I have known a highly sensitive-minded physician in London to shoot himself and the Professor of Chemistry of a medical school to glide out of life by poison. But Malcolm Morris is impulsive, decides in a matter at once, and action follows quickly his decision. His medical brethren applauded his conduct, a medical journal opened its pages to a subscription, and his friends shared the cost of prosecution, amount to $2,400.

Malcolm Morris has been twenty years in practice, but his beardless face and the energetic movements of his small, well-shaped body, impart to him a youthful appearance. When I saw him he was sad, the muscles of his smooth, classically-formed face, flickered with subdued excitement, his temper had been sorely tried and his lips curled with ill-concealed scorn. As editor of the *Dermatological Journal* and contributor to Cassell's Health series, his labors had been so augmented that his muscles stiffened and creaked, as a friend said, when he raised his arm.

While he was a guest of Lord Lytton, the embassador in Paris, I sauntered one Sunday morning with his family from "All Saint's," St. Margaret's, to Cavendish Square. Inside the locked gates of the park that enclose the privileged class, his wife and little boy, with the wife and little girl of another specialist, rested in one of the alcoves. Neither of the children was eight years old. The girl was buoyant with life. Her eyes were large and blue, her ringlets brown, roses had lent their color to her cheeks, so minutely perfect had the sculptor left her, that she might have been his masterpiece. The boy plump and cheery, dressed in naval uniform, raised his blue cap and saluted with a Castillian bow, as the ostrich plume, imported directly from Africa for her, came waving towards him. When her shy, inquiring, mischievous gaze met his, he advanced one foot and holding forth his hand, he made quite a polished speech to the young lady and to us. It was a diversion from the tittle-tattle to hear Mary's bird-like voice—for that was her name—ringing from the bushes, among which the two children were playing hide and seek.

The most learned of dermatologists in London, I opine, is Dr. Payne, one of the surgeons at the London Hospital for Diseases of the Skin. He was student at Oxford University, St. George's, Paris, Berlin, and Vienna, Fellow of Magdalen College, Radcliffe, Traveling Fellow of the University of Oxford, Bachelor of Science of the London University, Fellow of the Royal College of Physicians, Examiner in Sciences at Oxford, as well as being editor, author, and lecturer. In fact so many are his engagements, there is not much of the man himself to be seen. His boy in buttons seems bewildered when asked if his master is in, and runs off to see.

But the most genial of men as well as the most conscientious and accurate observer, is Radcliffe Crocker, Surgeon to the Skin Department of the University College Hospital. Fifteen years since he graduated at the London University, won several gold medals, became Obstetric Assistant to University College Hospital, and later Clinical Assistant to the Brompton Consumption Hospital. Finally, he assumed his present post. He is the author of the most advanced work on diseases of the skin we have in the English, but not more complete than written by several dermatologists. He is practical, and brings his diverse knowledge of medicine, especially of materia medica, to bear upón the subject he is teaching. His figure is tall and well proportioned, his face is oval, scholarly looking, the features are prominent and handsome, his countenance is sunny, yet a chance time a weary look, like a fleeting cloud flits quickly over it. He has a kindly voice, much sympathy in manner, and is consequently popular with both students and patients.

At the hospital the dermatologist, seated at the table, has a chair by his side for his visitor. He dictates prescriptions and notes of the cases to his clinical assistant, at the same time as the patients defile before him, he catechises the student. The wealthy idler, the untutored tender of cattle, the loungers in beer houses, the effeminate clerk, the ubiquitous female in search of illicit pleasures, are the main contributors to the skin hospitals. The ill-formed nose, the characteristic upper central incisors, the saffron-colored skin, the scars on the cheek or chin of the puny offspring of transmitted syphilis, may be seen oftener in the Hospital for Children.

It is always difficult, especially when initial lesion is derived, to differentiate between affections of the eye, throat, or skin, due to syphilis or natural causes. Sometimes the treatment alone determines its true character. Superficial lesions, however, follow the initial one from between six weeks and fifteen months, and the duration of the various syphilides is well known. Here enters a man, having the symptoms of locomotor ataxia, with loss of the tendon-reflex, his hands and arms, nearly to the elbow, are of a bright, red color, and covered with yellow, friable scales. He denied when in service, but now confesses he had syphilis. The specialist, who subsequently admitted that the disease was syphilis, declares the affection to be psoriasis rubra, and took occasion to caution the students not to conclude because a chancre had been present, therefore every skin disease following was necessarily syphilitic. In an apparent case of lupus, on the lip of a young woman, the mucous patches, which are so apt to be mistaken for aphthæ, on the tonsils and posterior arches of the palate, decided its true character. In an old lady, with a skin disease, the glossy, silvery tongue, with gummous infiltration, bore witness to the sins of her youth. In this sylph, with crimped blonde hair, dark, drooping, lustrous eyes, the color of her cheeks heightened by brandy, and her gauze dress redolent of perfume, one asks no questions; the scars of former ulcers in her throat "give her away." But this young man of dwarfed stature, bowed legs, pale, unhealthy-looking skin, with a short, celestial nose, defiant, audacious look, a swagger in his gait, with the inevitable short, black pipe, is the type of inherited syphilis. Surely the law, when it takes cognizance of so many trifling offenses, should have a punishment for parents who transmit such a disease to their offspring.

But among the ordinary cases of skin diseases may be noted the following:

A stout person, a market woman, about fifty years of age, has lichen planus, covering the arms and the inner surface of the thighs. It is a flat, purple mass, which, when rubbed to relieve the itching, emits a shower of fine scales.

A man with recurrent pemphigus, the large bulla mixed with red disks of denuded skin, being confined to the lower extremities.

An elderly man, with a slow growing, rodent ulcer, with everted edges, near the eye.

A stout boy, with xeroderma covering the body, of interest as being similar, but less severe than ichthyosis.

A woman with eczema, whose head and face were encased with yellow scabs.

A case of ptyalism attending the rubbing of blue ointment upon the hands in psoriasis palmaris.

Eczema on the head and impetigo contagiosa on the face of a boy, the scabs being attached in the first and merely laid on the face in impetigo.

A man who, for five years had lupus verrucosus, looking like mulberries upon the knuckles, the alias of which is scrofulous dermatitis, reminded one that lupus vulgaris and lupus erythematosus microscopically point to different causes.

A boy of twelve years of age has hydroa on both legs. It gives rise to much itching, sometimes large blebs make their appearance, followed by erythema annularis.

Here is another case thirteen years of age. Twelve months ago the boy was bitten by a dog on the left leg. Six months following vesicular eruption appeared along the musculo-cutaneous nerve of the thigh. When this herpetic eruption disappeared on this leg it appeared on the other at the precise corresponding place. The leg, as well as the thigh first attacked, are streaked with singular looking blue lines.

A man of thirty years, he may be a gentleman's groom, so bright, brisk and flashy is he and his dress, and yet with a mustache too really killing for a groom to have. When he appeared from one of the curtained recesses he was found literally covered, excepting the face, with eczema. Even the scalp and glans penis were affected. The eruption was eczematous and sympathetic, depending on the itch insect, traumatism having hidden the acarian furrow; but the surgeon, adroitly hoisting the acarus with the point of a needle from its burrow, placed it on the field of the microscope and slyly inquired of the student who was looking at it if it were a male or female. The male, as is well known, never burrowing into the skin.

Finally, ringworm among children was very common, and received the greatest attention. Two children, who had been treated by their grandmother with sulphate of copper, had holes in the scalp as if cut with a punch, and yet their mother said "air was still coming hout." Tinea tonsurans is not so easy of recognition as the untutored might suppose. The observer must learn to distinguish between the healthy, upright, shining hair and the dull, brittle, twisted, broken-off hairs of the disease that inflames the scalp and leaves it discolored and scaly. Instead of the skin being dry and squamous, there may be vesicular and pustular lesions, which will give rise to gummy secretion and the formation of crusts. After the trichophyton, which causes the disease, is removed from the strata of the epidermis and discovered with the microscope, a doubt may yet remain during the long treatment, as to the correctness of the diagnosis.

Yours truly, "BULL'S EYE."

LEGAL MATTERS OF INTEREST TO THE PHYSICIAN.

There are some accident policies which do not seem to insure against accidents. Here is one of them, as found in a New York case where the Preferred Mutual Accident Association was defendant. The policy stated that payments would be made to a member injured through "external, violent, and accidental means," provided said member shall "sustain bodily injuries by means as aforesaid which shall, independently of all other causes, immediately and wholly disable and prevent him from the prosecution of any and every kind of business pertaining to the occupation under which he receives membership." The insured was a retired gentleman having no occupation, who injured himself while operating a buzz-saw at the shop of a wagon manufacturing company of which he was a stockholder and director. As a result of the injury he was obliged to carry his arm in a sling, and was deprived of its use to some extent for several months. Under these circumstances the company refused to pay the policy, and in a lawsuit the court declared they need not pay it. * * * H. A. RILEY, Esq., in *N. Y. Med. Record.*

CINCINNATI, October 23, 1889.

Editor Lancet-Clinic:

Having at one time been connected in an official way with this insurance company (the Preferred), I became cognizant of their fraudulent manner of doing business and resigned a year or two ago. They make, they claim, a specialty of physicians, and were you to have the testimony of Drs. Jno. D. Jones, James M. French, and some others regarding the manner they were defrauded out of just claims, I think many who now hold policies would drop them and go into something reliable.

WILLIAM JUDKINS.

216 Race Street.

Society Reports.

ACADEMY OF MEDICINE.

OFFICIAL REPORT.

Meeting, October 14, 1889.

The President, WM. JUDKINS, M.D., in the Chair.

G. A. FACKLER, M.D., Secretary.

DR. ERIC E. SATTLER reported a

Case of Almost Complete Nasal Stenosis Produced by the Use of the Galvano-Cautery (see p. 494).

DISCUSSION.

DR. THRASHER considered the case not unique, but exceedingly interesting. Some points in its history were rather dark. Its course was different from that which such cases usually pursue. The nose is cauterized frequently and still left patulous. The galvano-cautery acts quite as it does in other parts of the body. It is employed to destroy tissues. After this action, a reaction sets in, which is of an inflammatory nature and usually results in swelling. That the nose should remain open for six days and then close is certainly an unusual occurrence. It is not unusual that there should exist a tendency to form adhesions, since the swelling is sufficient to act as an impediment to the secretions, thus causing erosions upon the septum, hence favorable conditions for adhesions.

A rather unique case had come under the speaker's observation. The patient was a physician, whose nose had been cauterized by a recent rhinologist. In default of a better instrument, a heated iron rod about one-quarter of an inch in diameter had been employed. The result was occlusion of the nares. The difficulty was remedied and the nose rendered patulous by cutting the adhesions.

There is one objection to cauterizing these parts with a cherry red knife in reducing hypertrophies. We have a pathological condition of the parts that are covered with mucous membrane. The cherry red knife destroys the mucous membranes and substitutes cicatricial tissue. Around the latter the secretions are very apt to accumulate, and troublesome crusts form. Hence it is a mistake to destroy so much surface tissue.

It has been more frequently his custom to use the white heat, in order to penetrate into the submucosa and thereby destroy the erectile tissue. The knife should be drawn from behind forwards entirely through the tissue, and as a result we may have a marked shrinkage. After healing only a small linear scar is left, which subsequently, by contraction, becomes almost obliterated.

The same objection against the cherry red knife holds good in case of the snare. Because it cuts out an extensive portion of mucous membrane it will leave a broad surface of cicatricial tissue. The method suggested by the essayist, to operate with the sharp edge of the knife against the surface, is the most admirable one. It should never be allowed to touch the septum, and the tissues should never be destroyed over septum and turbinated bone at the same sitting, unless lack of time prevents a more careful procedure. If it must be thus performed, the tampon must be called into use. The best material for this is the cotton-wool, and in some instances it may be better to employ a solid substance, in which case the speaker uses small zinc plugs, covered with cotton-wool.

The case reported well illustrates the fault of dismissing a case before the healing process has been perfectly completed. Any kind of cut in any portion of the body may be followed by disagreeable sequellæ, and this is especially the case when made in the nose, on account of the narrowed territory in which the operation is performed.

Dr. Dodd considered the iodoform gauze a better material than cotton for tamponing in cases in which, accidentally or for necessary reasons, both the septum and hypertrophied processes have been touched by the cautery; it is superior in that it remains antiseptic longer, requires to be changed less frequently, and, being more elastic and porous, it keeps the opposing cauterized surfaces farther apart and allows the air to pass more freely. He thought the use of the galvano-cautery to be overdone; that is, it is employed in many cases where less heroic treatment would be for the better interest of the patient. Chromic acid, fused upon the end of a slender probe, can frequently do the desired work as well and more safely; it being possible to introduce a probe and limit its movements in cases where the electro-cautery would be liable to touch parts that should be avoided. Chromic acid acts deeper and produces a greater contraction of hypertrophied tissue than the electro-cautery, therefore necessitating less destruction of mucous membrane to obtain the amount of contraction desired.

Dr. Julia Carpenter desired to refer to a subject not directly bearing upon the one under discussion, *i.e.*, cauterization of the sensitive areas of the rhinal mucous membrane as a cure for hay fever. The use of the galvano-cautery had not been attended with disastrous results, as in the case reported by the essayist, but no good had been accomplished.

The speaker had had the pleasure of attending the late hay fever convention in the White Mountains, where hay fever patients were giving their experience with different forms of treatment. Several reported that they had undergone the cauterizing process for the prevention of their annual attacks. They came just the same, however, and they were obliged to flee to the White Mountains, as usual. All they could say in favor of the cauterization was that, not leaving home until the hay fever had begun, they noticed that they made the journey with a little less discomfort, not being obliged to sneeze so many times on the cars.

Dr. Eric E. Sattler, in conclusion, desired to correct a misunderstanding of his report. The patient had left his physician six days after the operation, at the end of which time he felt relieved. The closure did not become manifest for some time afterwards. The speaker had seen him five or six weeks after the operation. Now we could readily understand that a few days after the operation, a superficial slough coming away, would increase the lumen and render breathing through the nostril more easy. During this time the doctor had seen him daily, and the nose had been attended to on the day he left; traveling on the road, in the dust and smoke, and exposed to the draughts, the mucous membranes had probably become irritated and swollen, and the surfaces, still raw and denuded, had become agglutinated and had in this way produced the stenosis. So that the case could be very readily explained, and did not seem so unique to the speaker.

He confessed that he was rather in favor of the cold snare in cases of true

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(*Paris Society of Medicine, Meeting of Feb. 8th, 1879.*)

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(*Gazette des Hopitaux de Paris.*)

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We have had prepared for the convenience of Physicians **Dietetic Notes,** *suggesting the articles of food to be allowed or prohibited in several of these diseases.*

These Dietetic Notes have been bound in the form of small perforated slips for Physicians to distribute to their patients. Mailed gratis upon request, together with our latest compilation of case reports and clinical observations, bearing upon the treatment of this class of Diseases.

LAMBERT PHARMACAL COMPANY,

116 OLIVE STREET, SAINT LOUIS.

RHEUMATISM.

DIETETIC NOTE.—A fruit and vegetable diet is most favorable for patients with chronic rheumatic troubles.

Allowed.—Beef and mutton in moderation, with horse-radish as a relish; fish and eggs, green vegetables and fruit, especially lemons. The skimmed milk diet has been advocated by some authors.

Avoid.—Starchy and saccharine food; all malt liquors, wines and coffee.

hypertrophy, especially when marked. Rarely in such cases would he employ the single- or double-bladed cautery knife in the manner described in the report, but only when there was simple turgescence and swelling of the turbinated processes without much hypertrophy. By means of the linear incisions and consequent cicatrices we succeed in tying down the erectile tissues and blood-vessels. He could not coincide with the previous speaker in that the objection to the double-bladed cautery knife, as shown, was that it removed too much of the mucous membranes. Its great advantage was that it removed a minimum of mucous tissue, only as much as is held between the two blades of the knife, which is about one-thirtieth or one-fortieth of an inch. The speaker had certainly used it with considerable success. One great objection to the cautery is the danger of burning away too much of the tissue, so as to impair or destroy the sense of smell. On this account, also, the snare is preferable when the hypertrophy is great, for then we are able to judge precisely how much of the tissue will be removed. Cauterization with the flat cautery knife will cause a much greater degree of cicatrization, and sometimes, no doubt, will produce troublesome accumulation of secretions. But it must be our endeavor to clear the nasal passages, in order to insure natural respiration and drainage, and it is necessary to sacrifice some amount of hypertrophied mucous tissue to accomplish that result.

Ol. Terebinth in Croup.—Dr. Lewentaner recommends the following in croup, having had much success in its treatment:

℞	Rectified oil turpentine,	1	fl ʒ.
	Oil of sweet almond, .	2½	"
	Simple syrup, . .	3	"
	Mucilage of acacia, .	10	"
	Yelk of one egg.		
	Canella water, enough to make	3	fl. ℥.—M

Sig.—A teaspoonful every hour for a child ten years old.—*Canada Lancet.*

The uncertain strength of Coca leaves make this drug very unreliable, unless a preparation is used, which we *know* to be made from a good leaf. "Robinson's Wine Coca" is prepared by percolating *assayed* Coca Leaves wlth Malaga Wine, and has always been found entirely satisfactory (see advg. page 16).

Selected.

THE ORTHOPEDICS OF INFANTILE PARALYSIS.

Read before the Mississippi Valley Medical Association, September, 1889,

By George W. Ryan, M.D.,
Clinical Lecturer on Orthopedic Surgery, Medical College of Ohio.

[*Louisville Medical News.*]

The purpose of this short paper will be rather in the line of suggestion than that of argument, for before this body the need of mechanical treatment in infantile paralysis certainly calls for no words of commendation from me. It is apparent to every one of us. However, although we admit this premise, it may be that through dissatisfaction with results in many cases, or with the heavy, ill-fitting apparatus of the shops, or with the difficulty in securing any appliance, it is probable that many practitioners have abandoned mechanical support altogether, with the belief that under the conditions above stated the support may be even worse than useless; in fact, harmful. It is probable, also, that many practitioners, because of the infrequency of such cases, do not have the time and do not care to acquaint themselves with the proper method or direction of making a good support, and endeavor to treat the child without this adjuvant.

There are a few practitioners, I am aware, who condemn all mechanical supports in this condition, no matter how skillful the surgeon may be in this department. But a few months ago I heard an intelligent physician say that it had been shown (by whom he did not state, nor could I learn by questioning him) that orthopedic measures in infantile paralysis were really harmful. But I am not here to argue this question, for I believe it admits of none. These views and conditions that have been pointed out are cited for the simple purpose of showing that they lead up, in the unfortunates who suffer from this disease, to the most distressing deformities and to a large proportion of the crippled to be seen on the streets of any city. That a very considerable number of these cripples come from the very poor is true, and the neglect in many of them may be charged to ignorance or carelessness of the parents; but that many more of them become so through careless advice is none the less true. It will be understood, of course, that these remarks apply to paralysis of the lower extremity, for in the few cases where the upper extremity may be involved, the matter of support of the weight of the body being out of the question, and the very slight tendency to deformity, the question of mechanical aid may be considered *sub judice*.

The most common deformity of infantile paralysis is the acquired club-foot, and this deformity grows greater as the mechanical support is delayed. In fact, in the beginning there is no contraction in any of the muscles of the palsied limb, but in time the healthy muscles begin to assert their power against their weakened fellows, and as a matter of course contracted tendons result, and subsequent talipes. Attempts at walking under this condition tend to the greater displacement of the tarsal bones and to contraction of the fibrous tissues of the plantar region. The result is a typical club-foot. Frequently that most troublesome type of talipes, calcaneo valgus, is the result.

Contraction of the hamstring tendons and of the flexors and external rotators of the hip-joint follows; or, again, the internal rotators at the thigh contract, and then we have a marked genu valgum with a varus or valgus. This is no exaggerated picture of the patient when mechanical treatment has been delayed in a case of some months' standing. That proper surgical and mechanical treatment will correct this, goes without saying; that it will, if used at the proper time, prevent it, is easily demonstrated and more easily performed. Aside from the prevention of deformity, let us take up the question of mere support. What is a more painful sight than to see a partially paralyzed child struggling along with the characteristic limp of infantile paralysis, without an apparatus or a crutch? The awkward, laborious attempt to lift the flabby limb involves the expenditure of more than double the muscular energy of a normal child in walking, and this exercise is of no benefit even to slightly paretic muscles, for nature then calls on none but those on which she can rely. Does the surgeon, after removing the dressings of a fractured thigh, tell his patient to go about without crutch or cane? If he did, would not the patient almost instinctively reject such advice? He feels to well the weakness of his limb, and knows that for a time it would be impossible without support. The surgeon advises support here, not to prevent deformity, but to enable his patient to get about easily until sufficient strength is regained to discard the support. So it is with the infantile paralytic. The support accorded the child by crutches enables it to get about, but it gives only aid in locomotion, and does really nothing to improve partially palsied muscle or to prevent muscular contraction and subsequent deformity. A carefully constructed appliance on a child with infantile paralysis who has arrived at the walking-age is always indicated, therefore, even if there be a paraplegia so great as to preclude walking for several months, for the reason that it will certainly prevent contraction of the healthy muscles. And when, with time and electricity and massage, the child has reached that period when it may attempt locomotion, the appliance is a very great aid, for if it be properly constructed and intelligently applied it will give the weakened muscle an opportunity for moderate exercise, while it controls and limits at the same time the healthy muscle, which tends to contraction. The principles which govern its application are dictated simply by reason and common sense, viz., to give exercise to the weakened muscle at the expense of the healthy one, and to develop as much as possible the normal relation of one group of muscles to their antagonists. Hence it will be useful as an adjuvant to electrical treatment, as it keeps paralyzed muscle in a position where it may acquire the greatest benefit from local dosage.

Another point that deserves a few words is the degree of comfort and improved gait and appearance. Certainly the laborious gait with an effort requiring so much muscular force is greatly lessened.

Regarding the weight of apparatus, a matter of very much importance, it may be laid down as a rule that it should be as light as is possible with the strength required. Weight is not a matter of such importance in the appliances used in joint diseases, for it often adds to the traction necessary—a not undesirable thing in a hip case. The prejudice against heavy apparatus is not altogether a just one. But, in the condition we are treating of here, matters are altogether different. The appliance is to be a support, an aid, and it should be made as light as possible. The surgeon can, by a little persistency, soon disabuse the mind of the conservative instrument-maker of many of his somewhat old-fashioned fancies. But even worse than the heavy appliance is the one that under the pretense of getting a close fit, and consequently a less conspicuous appearance—the laced or binding appliance that is fitted closely to limb by means of hard leather bands, and tightly laced over it at thigh and calf. These have done more harm, I believe, than the heavy, awkward appliances, much as they have done. The damage is not alone from the interference with the circulation, although that is bad enough, for it is a necessity that a palsied limb should have no more than its own abnormal congestion; but it is the degree of muscular atrophy that these bindings and lacings produce. The arrest of atrophy is the one great object of the early treatment, and such appliances tends only to its rapid increase. Under no circumstance should they be used.

As the case progresses to improvement —and they do improve despite the views of some surgeons, although it may be months or perhaps a few years — the amount of support may be lessened and the patient permitted to get about with a shorter appliance. This is done with the purpose of encouraging the patient to depend more and more upon himself. Many cases, however, reach a certain amount of improvement very early, and almost surely all of them shortly before puberty, when no further gain can be reasonably hoped for. In the marked ones the support then becomes a necessity in so far as it is a comfort and a cosmetic, and its use then becomes a matter of a lifetime.

In the older patients with contracture —though this term may not be a happy one, it expresses a condition which we readily understand — apparatus will be of little service unless applied after the division of the tendon and fascia. And even in the simpler cases the knife does better service than any attempt at stretching, for it does it at once without the prolonged discomfort generally attending a stretching process by mechanical means. Physiologically and theoretically the division of a tendon may be wrong and followed by weakness. As a matter of fact, subsequent weakness of a divided tendon or muscle is a rare event.

The use of some support following such division is a necessity in order to prevent the return of the condition. The question may be summed up in the following conclusions:

1. The orthopedic treatment, in conjunction with local treatment of muscles, is useful in all children who have arrived at the walking-age, by reason of the support it gives, and that it prevents deformity.

2. That it tends to preserve in a measure the proper balance between antagonistic groups of muscles, in that it aids the weakened group and restrains the normal one.

3. That by this means it gives the paralytic group the benefit of any movement they may be capable of, and in this way can they get exercise.

4. That it certainly can correct deformity.

5. That a heavy appliance, or one adjusted by lacing bands to the leg or thigh, does more harm than good.

6. That such measures are a necessity in the after-treatment of divided muscle or tendon.

7. That in most contractions it is better to divide than to stretch them.

TREATMENT OF INGROWING TOENAIL. —Dr. Hofmann, of Erlangen, recommends a simple and painless method of treating this complaint. After the part is thoroughly cleansed and disinfected by sublimate solutions, a few drops of liq. ferr. perchl. are dropped on the affected spot. The edge of the nail is then gently raised. It is then dried. This is repeated on the second and third day. If suppuration takes place, the hardened scabs are to be removed with forceps, and the ferr. perch. again applied. The nail soon becomes soft and brittle so that it can be easily removed, and without pain.—*Med. Press and Circular.*

JUGULATING PNEUMONIA.—At the recent Therapeutical Congress, in Paris, M. Petrescii, of Bukharest, claimed that pneumonia could be aborted in its early stages by giving large doses of digitalis, *e.g.*, four to eight grammes (ʒj. to ʒij.) of the leaves of infusion, daily.—*N. Y. Med. Record.*

TREATMENT OF WHOOPING-COUGH.

[*Med. Press and Circular.*]

It is generally presumed that this disease is due to cocci, bacilli, or some form of fungi for its specific origin, but although this assumption is usually accepted, Poulet, Henke, Jansen, Letzerich, Tschamer, and Burger have all failed in their zealous effort to capture some active germ that might be charged as the guilty offender. Notwithstanding this sacred absence of a germinating virus, antiseptics are propounded as a specific; and Dr. Naegeli, of Ermatingen, gives all the credit to inhalations of carbolic acid as an infallible remedy for abbreviating the course of the disease, if the atmosphere of a patient's room be constantly kept in a nebulous condition with these mephitic fumes of carbolic acid. To assume the infallibility of this drug when we do not know what the disease is, is surely leaning heavily on faith. Niemyer maintained that the disease was a specific in catarrh of the trachea or larynx, and purely local. Meyer-Huni and Wolff considered it a catarrh of the larynx, with a reddening of the under surface of the epiglottis, extending over the arytænoid cartilages. These views were opposed by Rossbach, who believed the disease to be a simple neurosis. This opinion has yet many devotees at the present time. Naegeli views the disease as an infectious one, in the same way as enteric fever, which is located to the bowel when throwing off the poison, while pertussis confines itself to the larynx, which produces a reflex neurosis of the superior laryngeal nerve as well as the vagus. Mayer and Herff attempted to explain the induction of the paroxysms by the accumulation of a little mucus on the posterior wall of the larynx without any neurotic condition being present, but it is well known that large quantities of this may accumulate at times in children and produce no inconvenience at all.

The treatment of whooping-cough, as might be expected from the diverse opinion entertained, is very erratic and anomolous. Letzerich recommends insufflations of quinine, Mayer astringents to the surface of the throat and nose, Michael insufflation of the resin of benzine, while Sommerbrodt makes use of the cautery just before the approach of a paroxysm, which has the desired effect of preventing or greatly reducing the baneful spasm, the ambition and end of all our treatment. Owing to the spasmodic contraction of the rima glottidis the child, when a spasm supervenes, is in imminent danger of suffocation. Kappeler, to obviate this danger, advised the bringing forward of the tongue, or the lower jaw and tongue if necessary. Naegeli gives a labored description of this operation, and explains its utility in relaxing the muscular tonus or reflex as well as the mechanical elevation of the whole laryngeal apparatus with the tongue and hyoid bone, stretching the genio-glossus muscle, and probably the rima glottidis. When the spasm can be cut short in this way vomiting, bleeding, and lung complications may be averted.

"Aprosexia."—Aprosexia is the name given by Professor Guye, of Amsterdam, to express the inability to fix the attention, and other allied troubles in the cerebral functions caused by nasal disorders. His paper on the subject is an interesting, if not practical, contribution to the literature of diseases of the nose. The late Professor Hack, of Freiburg, was, perhaps, mainly instrumental in drawing attention to the occurrence of nasal reflexes, of which the origin was pathological, and much inquiry has been made in this direction since the publication of his observations. The author affirms that it is generally admitted that we have the right to consider as pathological nasal reflexes only such symptoms as can be looked on as modifications of the normal nasal reflexes. The normal expiratory nasal reflex, for example, can be changed into nasal cough and asthma; the vaso-motor reflex can be exaggerated and produce local hyperæmia of various regions of the head and face, and morbid sensitiveness to alcoholic stimulants; lastly, the secretory reflex can give rise to unnatural flowing of tears and to conjunctivitis, as in hay fever. The opinion is also expressed that if it were generally known how many cases of chronic headache, of inability to learn or perform any mental work, are due to chronic diseases of the nose, many of these cases would be easily cured, and the number of children—victims of the so-called over-pressure in education—would be notably reduced. It is not denied that over-pressure exists in schools, but attention is vigorously drawn to the fact that most of the symptoms associated with this condition are very often caused by a morbid state of the individual, which is open to a very effective treatment. Thus in every case of habitual headache and inability to work, and loss of memory among scholars, it is essential to inquire after the state of the nose, and ascertain if the normal nasal respiration be not impeded, and habitually or temporarily suspended by breathing through the mouth. The author also cites, by way of illustration, a notable case of improvement in the mental condition of a boy from whom he removed a mass of adenoid growths from the naso-pharynx. It would seem to be a rational conclusion from the above observations that free respiration through the nose is absolutely imperative in order to secure the full exercise of the mental faculties. The author concludes his paper by giving the details of the treatment which he adopted in most of his cases with successful results.—*Med. Press and Circular.*

SOCIETY NOTICES.

Academy of Medicine.—

November 4, Dr. Buxbaum will read a dental paper.

Cincinnati Medical Society.—

November 5, Dr. Eichberg will read a paper on "Infectious Phlegmon of the Pharynx"; and Dr. Thompson a paper on "Foreign Body in Larynx."

Officers of the Cincinnati Medical Society.—The following officers were elected at the annual election, October 29:

President—Dr. C. R. Holmes.
Vice-President—Dr. Wm. L. Mussey.
Secretary—Dr. E. S. Stevens.
Treasurer—Dr. J. C. Oliver.
Corresponding Secretary—Dr. A. D. Birchard.

Is the Indian a descendent of the Jew? This question has been many times discussed, and is answered in the affirmative by some very intelligent Jews. Professor Mendenhall in a paper before the late meeting of the American Association for the Advancement of Science showed that in the history of these races they followed parallel planes of culture.—*American Lancet.*

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

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DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, November 2, 1889.

The Week.

ELECTRIC LIGHT AND POWER WIRES.

In a recent issue we took occasion to call attention to the very great danger to human life and property caused by the stringing of overhead wires that carry intense currents of electricity.

Of this a practical demonstration was then fresh in mind of a man instantly killed and held dangling in mid-air, suspended in a network of wires that prevented his precipitation to the ground. Not only had the man been instantly killed by the electric current, but he was actually set on fire.

This week there has been another demonstration of the deadly character of wild or uncontrolled electricity from an intense current. This time the illustration is furnished in the streets of our own city, and supplied by a power wire of a street railroad line. At midday, Walnut street above Fifth was suddenly illumined with a lurid, fiendish glare, that flashed here and there in a strangely terrifying manner. A sizzling, frying, burning overhead wire had broken from its fastenings and was wriggling, squirming, creeping in the street.

Horses snorted and became unmanageable; horrified men and women fled from the dazzling danger. Wherever a bit of the wire melted and fell to the street it scarred the asphalt, for it was at a super-white heat, and if it fell on the iron rails they were marked as if made of wood, and in places a firm weld took place.

A real bright, smart railroad electrician told the reporter of one of the daily papers of the innocence of the electric current used by the railroad company for power purposes; that in case of an accident, such as the breaking of a wire, as in this case, the trouble was at once indicated at the power-house, and the current immediately cut off; that there was no danger to life, as the voltage used was only two hundred and forty, while it takes one thousand volts to kill a man. True to his instincts, this child of Ananias remarked as above, when he should have stated that the current used by the railroad company was twenty-four hundred volts.

No witness of those melting, sizzling strands of wire, that squirmed and burned like tow and welded with cold iron, will believe any such nonsense. Those wires are a constant menace to life and property and should not be strung in mid-air. The place for them is under ground, and any accident from them should mulct the railroad and light companies in the highest possible damages.

We favor encouragement to rapid transit street railroads and improved street lights. The people want them and want them badly; nevertheless, the want must be met in a manner that is entirely free from danger to life and property.

The carrying of strong, intense currents of electricity through overhead wires is an ever-threatening danger that must be provided against.

Dr. Phillippe Ricord, the celebrated French surgeon and syphilographer, died in Paris last Tuesday, October 22. He was born in Baltimore, Dec. 10, 1800.

OHIO STATE SANITARY ASSOCIATION.

The seventh annual meeting of this association will be held in the hall of the Young Men's Christian Association, Dayton, Ohio, November 21 and 22, 1889.

OFFICERS.

President—D. H. Beckwith, M.D., Cleveland.

Vice-Presidents—Josiah Hartzell, Esq., Canton; Lew Slusser, M.D., Canton; Professor E. A. Jones, Massillon.

Secretary—R. Harvey Reed, M.D., Mansfield.

Treasurer—J. M. Weaver, M.D., Dayton.

COMMITTEES.

Executive—Dr. J. M. Weaver, Dayton; Dr. W. J. Conklin, Dayton; Professor J. J. Burns, Canton; Dr. H. E. Beebe, Sidney; Professor E. T. Nelson, Delaware.

Legislative—Dr. C. O. Probst, Columbus; Dr. T. Clark Miller, Massillon; Dr. L. C. Herrick, Columbus; Dr. Byron Stanton, Cincinnati; Dr. E. R. Eggleston, Mt. Vernon.

Publication—Dr. R. Harvey Reed, Mansfield; Dr. G. C. Ashmun, Cleveland; Dr. A. H. Brundage, Xenia.

Membership—Dr. John McCurdy, Youngstown; Mr. James Allison, Cincinnati; Dr. W. H. Cretcher, Bellefontaine; Dr. G. A. Collamore, Toledo.

Headquarters at Beckel House.

The following programme is announced:

THURSDAY, NOVEMBER 21, 1889.

First Session, 9:30 *A. M.*

Prayer by the Rev. W. A. Hale.
Reading of minutes.
Reports of Committees.
Miscellaneous business.

PAPERS.

"The Relations of Theologians to Sanitarians," Dr. D. J. Snyder, Scio.

"Sanitation vs. Medication," Dr. S. P. Bishop, Delta.

"Recent Advances in Etiological Science," Dr. E. R. Eggleston, Mt. Vernon.

"Sanitation in Small Villages," Dr. Austin Hutt, Waverly.

Second Session, 1 *P. M.*

"Bodily Comfort as a Sanitary Object," Dr. G. C. Ashmun, Cleveland.

"Influence of Climate Upon So-Called Malarial Fevers," Dr. Wm. Owens, Cincinnati.

"The Cadaveric and Vital Alkaloids," Professor C. C. Howard, Columbus.

"Will General Sanitation Ever Become Popular?" Dr. John McCurdy, Youngstown.

Third Session, 6:30 *P. M.*

Address of welcome, Hon. A. D. Witt.

Response to the address of welcome, Dr. R. Harvey Reed, Mansfield.

Poem—"Bacteria, or the Flies We Feed on and the Bugs that Kill Us," Dr. W. S. Battles, Shreve.

"President's Address":—

a. The use of Pork; its relations to Scrofula and Consumption.

b. Mosaic prohibition of Pork as taught by the Scriptures, and the prejudices of most of the Ancient Nations to its use as food.

c. Description of Trichina-Spiralis and their dangerous effect on the human body. Dr. D. H. Beckwith, Cleveland.

The evening programme will close with a social session, to which the ladies are especially invited.

FRIDAY, NOVEMBER 22, 1889.

Fourth Session, 9 *A. M.*

Prayer, Rev. J. P. Landis.

"Food as a Therapeutic Agent," Dr. H. J. Herrick, Cleveland.

"The Best Food for Man," Dr. J. D. Buck, Cincinnati.

"The Relation of Water Supply to Disease," Dr. H. J. Sharp, London.

"The Necessity of Uniform Rules, Regulations, Reports and Records of Local Boards of Health," Dr. F. Gunsaullis, Columbus.

Fifth Session, 1 *P. M.*

"The Sanitary Teachings of the Bible," Professor E. T. Nelson, Delaware.

"The Hygiene of the Chronic Insane," Dr. J. W. Scott, Cleveland.

"Garbage and Night Soil Crematories from a Financial and Practical Standpoint," Dr. Geo. I. Garrison, Wheeling, W. Va.

Election of officers.

Miscellaneous business.

Introduction of officers-elect.

Appointment of Standing Committees.

Instructions to Delegates.—Through the courtesy of the Central Traffic Association, persons attending the seventh annual meeting of the Ohio State Sanitary Association will be granted a reduction in their return railroad fare on certificate plan.

All persons interested in having and maintaining good health are most cordially invited to attend all the sessions of the association.

MISCELLANY.

PHYSICIANS AS FINANCIERS.—Physicians are generally admitted to be exceedingly poor financiers. There is probably no class of men who realize so little financially from their labors. Persons are often astonished in how straightened circumstances many physicians (who were known during life to have had large practices), on dying, leave their families. They lived moderately, indulged in no luxuries, yet, after all debts have been paid, there will be left to the families of each one probably only a very unostentatious dwelling.

For the last twenty-five or thirty years efforts have been made to simplify the business books of physicians, so that as little time as possible would be required for a medical man to enter his charges and keep something like a systematic account of his business. It has been found impossible for one engaged in the active practice of medicine to keep what is called a day-book, cash-book, and ledger, for with such a set of books, oftentimes not having time to enter any charges for two or three days, he will frequently forget many items. Then again, frequently he will let his ledger go unposted for weeks and months, and when called upon to make out a bill he will in consequence not be able, and will be under the necessity to ask the applicant to call again.

Visiting lists have been constructed to enable physicians more easily to keep account of their services; and they have certainly been of great use. We feel sure that, through them, we have saved many dollars which, without them, we would have lost.

The very best book that we know of for a physician, in which he can keep an account of his services to all his patrons, is Bernd's Physician's Register. For a physician to keep one of these requires no skill—no knowledge of book-keeping. A ten-year-old child can master it; and yet a more methodical, a better adapted method of keeping a physician's accounts could not be devised. If a doctor cannot, with one of these, register all his business, so that he can know at any time who owes him and who does not, there will be no hope of being able to devise anything for him so that he can keep an account of his business.

We consider the members of the medical profession are under great obligation to Messrs. Henry Bernd & Co. for their Register. We hope they will have a large sale, not for the sake of the Bernd's merely, but for the sake of the families of physicians.—*Med. News*.

To Clean the Teeth. — A. Gawalowski (*Oel und Fet. Ind.*) recommends rubbing black or spotted teeth with cuttle-fish bone made into a stiff mass by mixture with a four per cent. solution of hydrogen peroxide. After using, the mouth should be rinsed with water. In this way the teeth may be whitened in a few minutes; and it is said that the operation will not injure the enamel.—*Druggist's Circular*.

Preserve Your Instruments.—You can preserve your instruments from rusting by immersing them in a solution of carbonate of potash for a few minutes. They will not rust for years, even when exposed to a damp atmosphere.

FOR SALE.—A lucrative established practice for sale, with good two-story frame house and office, stables, etc., all in good order. Possession given immediately upon sale of premises, and good will of practice to go with sale. Terms reasonable. Cause for selling—wish to retire. Address,
Dr. C. T. McKibben, Moscow, O.
Or Lancet-Clinic office.

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A fee of $5.00 will be charged for such examinations.
Leonard Freeman, M.D.,
J. C. Oliver, M.D.,
Otis L. Cameron, M.D.,
Oliver P. Holt, M.D.,
Curators and Microscopists.

Are prepared to make examinations of river water, milk, etc., for the typhoid bacilli.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending October 26, 1889.

Ward.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	...	...	...	...	...	...	...	...	...	...
2nd	...	...	...	...	...	...	...	...	...	1	...
3rd	...	...	...	...	...	...	4	...	...	...	...
4th	...	...	...	...	...	...	...	...	...	1	...
5th	...	...	...	...	4	...	2	1	...	...	...
6th	...	...	1	...	...	...	1	...	...	...	...
7th	...	...	...	...	...	...	...	...	...	...	...
8th	...	...	...	...	...	...	2	1	...	...	...
9th	...	...	...	...	...	...	1	...	...	1	...
10th	...	...	...	...	...	...	1	...	...	...	...
11th	1	...	...	...	...	...	4	2	...	...	...
12th	...	...	...	...	...	...	2	1	...	...	...
13th	...	...	...	...	...	...	...	...	...	...	...
14th	...	...	...	...	...	...	2	...	...	1	...
15th	...	...	...	...	...	...	1	1	...	...	...
16th	...	...	...	...	...	...	1	1	...	...	...
17th	...	...	...	...	...	...	...	...	...	...	...
18th	...	...	...	...	...	...	...	...	...	...	...
19th	...	...	...	...	...	...	1	...	...	...	...
20th	...	...	...	...	...	...	3	1	...	...	...
21st	1	...	...	...	...	...	1	...	...	...	...
22nd	1	...	...	...	...	...	1	...	...	...	...
23rd	...	...	...	...	...	...	4	...	...	...	1
24th	...	...	...	...	...	...	...	...	...	...	...
25th	...	...	...	...	...	...	2	...	...	1	...
26th	...	...	...	...	...	...	...	...	...	...	...
27th	...	...	...	...	...	...	...	...	...	...	1
28th	...	...	...	...	...	...	3	...	...	...	...
29th	...	...	...	...	...	...	...	...	...	...	...
30th	...	...	...	...	...	...	...	...	...	...	...
Cin. Hosp.	...	...	...	...	...	...	...	...	...	...	...
Betts-street Hospital	...	...	...	...	...	...	...	...	...	...	...
Marine H.	...	...	...	...	...	...	...	...	...	...	...
Totals	3	..	1	..	4	..	36	8	...	5	2
Last week	1	..	5	..	...	1	51	6	...	1	3

The following is the mortality report for the week ending October 26, 1889.

Cholera Infantum	1
Cerebro-spinal Meningitis	4
Diarrhœa	3
Dysentery	1
Other Zymotic Diseases	15—24
Cancer	4
Phthisis Pulmonalis	9
Other Constitutional Diseases	4—17
Apoplexy	1
Bright's Disease	2
Bronchitis	6
Convulsions	3

Heart Disease	5
Liver Disease	1
Peritonitis	3
Pneumonia	11
Other Local Diseases	16—48
Old Age	4
Premature Birth	1
Other Developmental Diseases	10—15
Accidental	4
Deaths from all Causes	108
Annual death rate per 1000	17.28
Deaths for corresponding week in 1888	98
Deaths for corresponding week in 1887	104

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 30 observers (embracing 28 counties) show the following diseases to prevail for the week ending Friday noon, October 25, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.	REMARKS.
Tonsillitis	13	26	Diphtheria reported by observers at Russelville, Crestline, Woodville, Glendale, Russell, Lovetts, and Jacksonboro. Reported by health officers: Toledo, 15 cases, 7 deaths; Columbus, 20 cases, 3 deaths; Akron, 2 cases; Dayton, 13 cases, 1 death; Zanesville, 1 case; Canton, 1 case, 1 death; Springfield, 14 cases, 1 death; Hamilton, 5 cases, 2 deaths; Ashley, 2 cases; Fostoria, 2 cases, 1 death; St. Bernard, 1 case, 1 death; Middletown, 1 case, 1 death; Crestline, 2 cases; Youngstown, 1 case.
Diarrhœa	11	22	
Bronchitis, acute	10	22	
Intermittent Fever	9	20	
Rheumatism (acute)	9	12	
Diphtheria	8	21	
Typho-Mal. Fever	7	12	
Typhoid Fever	7	9	
Pleurisy	7	7	
Scarlet Fever	4	11	
Pneumonia	4	5	
Remittent Fever	3	5	
Whooping Cough	2	7	
Cholera Morbus	2	3	
Dysentery	2	2	
Consumption (Pul.)	2	2	
Erysipelas	1	1	
Puerperal Fever	1	1	
Cholera Infantum	0	0	
Croup, membranous	0	0	
Measles	0	0	
Cerebro-Spin. Men.	0	0	

Scarlet Fever reported by observers at Martin's Ferry, Crestline, Woodville, and Lyons. Reported by health officers: Toledo, 4 cases, 1 death; Columbus, 1 case; Akron, 2 cases; Dayton, 1 case; Canton, 6 cases; Springfield, 2 cases; Hamilton, 2 cases; Crestline, 4 cases; Fostoria, 1 case; Youngstown, 5 cases; Springboro, 5 cases; Piqua, 1 case; Defiance, 2 cases; Findlay, 1 case; Millersburg, 1 case; Woodsfield, 4 cases; Painesville, 1 case; Utica, 6 cases.

Typhoid Fever reported at twenty places.

C. O. PROBST, M.D., Secretary.

Bibliography.

CYCLOPÆDIA OF THE DISEASES OF CHILDREN, MEDICAL AND SURGICAL. Vol. II.

Edited by JOHN M. KEATING, M.D. Illustrated. Philadelphia: J. B. Lippincott & Co.

Immediately on the heels of the first volume of this truly valuable work comes the second, freighted with many treasures of very great worth.

Part I. of the volume opens up with a useful chapter on Diseases of the Skin, by James Nevins Hyde. Beginning with the skin glands, he treats of seborrhœa, comedones, acne, millium, moluscum epitheliale, asteatosis, the sweat glands, and hyperidrosis. Dr. W. A. Hardaway treats next of the Inflammations, such as erythema and furuncle, while Dr. H. Tuholske gives a chapter on phlegmons and ulcers. This is followed by an extended chapter by Dr. L. Duncan Bulkley on the other inflammatory affections of the skin, eczema and purpura being treated in a separate chapter by Dr. A. VanHarlingen. Hypertrophies and Atrophies, by Dr. J. E. Graham; Nævus, by Dr. Lewis S. Pilcher; Syphilitic Skin Affections, by Dr. J. E. Atkinson, and Parasitic Diseases, by Dr. Henry W. Stelwagon.

Our readers will readily see that in this part there is a veritable symposium of gems on these very frequent infantile affections.

Part II. Scrofulosis is written of by Dr. Henry Ashby, Tuberculosis by Dr. A. Jacobi, and Syphilis by Dr. A. Post, all excellent contributions. Rachitis, by Drs. Thomas Barlow and J. S. Bury, is a well-written and illustrated article. The Urinary Diathesis, by J. Milner Fothergill, was the last literary work of this gifted author; the chapter is characteristic of the writer, and one of his best productions. Diabetes Mellitus, by Geo. B. Fowler, is an excellent article.

Part III, devoted to diseases of the respiratory tract, opens with a paper on Nasal Obstruction, by Dr. J. N. Mackenzie, and on Reflex Cough, by Dr. A. W. McCoy. Tumors of the Nose, by Dr. D. B. Delavan; Acute Coryza, by Dr. Carl Seiler; Diseases and Injuries of the Pharynx, by Dr. E. Fletcher Ingalls; Diseases of the Tonsils, by Dr. Beverly Robinson, are all valuable contributions. Intubation, by Dr. W. P. Northrup, and Tracheotomy, by Dr. H. R. Wharton, are well-prepared papers. Atelectasis Pulmonum, by Dr. Francis Minot; Croupous Pneumonia, by the same writer, and Bronchitis, Dr. F. G. Morrill, are all up with the times.

If we had space we would be pleased to give a more extended notice and comment on this work, that must for a long time be a standard library reference book. It is wonderfully complete, without being prolix.

A MANUAL OF DISEASES OF THE EAR: For the Use of Students and Practitioners of Mecicine.

By ALBERT H. BUCK, M.D., Clinical Professor of Diseases of the Ear in the College of Physicians and Surgeons of New York; Consulting Aural Surgeon, New York Eye and Ear Infirmary. New York: Wm. Wood & Co. Cincinnati: Robert Clarke & Co.

The first edition of this work appeared in 1880, and now the accomplished author appears with a second one, saying that he has been led by further experience to modify many of his earlier views and methods of treatment, and so considers the present a most favorable time for revising the text. Looking over the book very carefully, the reviewer finds that while a few chapters have been altered a little, others have been entirely re-written, and considerable new matter has been added. The illustrations are also, in the majority of instances, different from those introduced in the earlier work.

The table of contents shows about what may be expected in a treatise of this kind. First, there are many papers on diagnosis; next comes a chapter on general pathology, and then in the following order the diseases of the auricle: external auditory canal, middle ear, mastoid process, fractures of the temporal bone, syphilitic and tubercular disease of the deeper parts of the ear, and lastly different forms of aural disease in which the labyrinth is believed to be involved. The diseases of the middle ear are subdivided into (1) acute and subacute catarrhal, (2) chronic catarrhal inflammation, (3) acute purulent inflammation, and (4) chronic purulent inflammation. The chapter on the methods of examining the middle ear is very valuable and instructive, and so, too, is the account in the appendix of the anatomical and physiological sketch of the organ. The book is well gotten up, contains 420 pages, presents a handsome appearance, and should be in every medical man's library.

The limits of this review preclude a notice of the author's views on pathology and treatment. The position neld by Professor Buck in the profession insures the book a warm reception and ready sale.

A MANUAL OF MINOR SURGERY AND BANDAGING: For the Use of House Surgeons, Dressers and Junior Practitioners.

By CHRISTOPHER HEATH, F.R.C.S., Surgeon to the University College Hospital, etc., etc. Ninth edition. P. Blakiston, Son & Co., 1889.

This book has been before the profession for nearly thirty years, and its continued appreciation is evidenced by the number of its editions. It is admirably and concisely written, and nothing relating to its title has been omitted in its more than three hundred pages. It will be found to be a convenient and excellent handbook for students and practitioners.

TRANSACTIONS OF THE AMERICAN ORTHOPEDIC ASSOCIATION. Vol. I.

Published by the Association. 1889.

The appearance of a handsome volume of three hundred pages from an association devoted exclusively to orthopedic work marks a distinct era in American surgery. Whether the constantly growing tendency towards specialism is to be deplored or not, it must be accepted as a fact. Specialism is with us and it has come to stay. It has withstood alike the ridicule of the narrow-minded and the honest protests of some of the noblest minds in the profession. The practitioner who looks upon the orthopedist as a "man of straps and buckles" only, would find occasion for some surprise by glancing over the titles of most of the printed papers. The papers themselves show a closer relation and attention to the established principles of medicine and surgery alike than most of those from special societies. The profusely technical names and phrases, often requiring a special education to be understood, are missing here; and to the general practitioner or surgeon such a volume cannot fail to be of great service. Such articles as those on the treatment of club-foot, of psoas abscess by incision and drainage, of round shoulders, wry neck, lateral curvature, osteotomy, immobilization in joint disease, etc., etc., possess an interest not alone to the orthopedist, but to every one who does not confine himself to other special fields of practice.

CHEMISTRY, GENERAL, MEDICAL AND PHARMACEUTICAL: A Manual of the General Principles of the Science.

By JOHN ATTFIELD, F.R.S. Twelfth edition. Philadelphia: Lea Brothers & Co., 1889. For sale by Robert Clarke & Co. Price $3.25.

A text-book on an exact science like chemistry that has passed through eleven editions needs no further comment at our hands than the statement that it has been revised and made to contain all the newest discoveries and correspond with the latest nomenclature. This work now includes the whole of the chemistry of the United States Pharmacopœia, and nearly all the chemistry of the British and Indian Pharmacopœias.

A LABORATORY GUIDE IN URINALYSIS AND TOXICOLOGY.

By R. A. WITTHAUS, A.M., M.D., Professor of Chemistry in the Medical Department of the University of New York; Professor of Chemistry and Toxicology in the Medical Department of the University of Vermont; Member of the American Chemical Society and of the Chemical Societies of Paris and Berlin. Second edition. New York: Wm. Wood & Co. Cincinnati: Robert Clarke & Co.

The first edition was issued three years ago, and such has been its popularity that another one has been called for. It is a handy little book of seventy-five pages, and, being printed only on one side of the paper, is so arranged that the student can easily prop it up before him on his laboratory table and consult it as he works with his apparatus. The table of contents shows the following:

I. Qualitative analysis of the urine.
II. Quantitative analysis of the urine.
III. Urinary deposits.
IV. Analysis of calculi.
V. Detection of poisons.
  (*a*) Volatile poisons.
  (*b*) Mineral acids and alkalies.
  (*c*) Metallic poisons.
  (*d*) Vegetable poisons.

The illustrations—thirty-one in number—are fine, while the general rules for working are worth more to the beginner and student than ten times the price of the work. The table of the colors of the different kinds of urine—eight in number—is very instructive. The first edition did not contain this handsome plate.

DISEASES OF THE EYE: A Practical Treatise for Students of Ophthalmology.

By GEO. A. BERRY, M.B., F.R.C.S.Ed. Illustrated. Philadelphia: Lea Brothers & Co., 1889. For sale by Robert Clarke & Co. Price $7.50.

The man who undertakes the writing of a text-book on any department in medicine must be possed of a divine impulse, or a stupidity begotten of the evil one. However, the field is open to all comers, and every time there will be a survival of the fittest, and a condemnation and going to the wall of the weakling.

We are pleased—delighted—with this book by Dr. Berry. The plates are among the finest we have ever seen, and that is very much in a work on the eye. While of the text, it is clearly up to date in presenting all that is known of this highly important subject. Of one thing we must speak: The truthfulness of the illustrations and the author's evident desire to display and describe an actual and never an imaginary condition of the parts and disease of which he was writing.

A TEXT-BOOK ON HUMAN PHYSIOLOGY, Including Histology and Microscopical Anatomy, with Special Reference to the Requirements of Practical Medicine.

By DR. L. LANDOIS. Third American, translated from the sixth German edition, with additions by WILLIAM STIRLING, M.D., with six hundred and ninety-two illustrations. Philadelphia: P. Blakiston, Son & Co. For sale by Robert Clarke & Co. Price $6.50.

For nearly a generation it has seemed as if it were not possible to produce a text-book for medical students and physicians that could be superior to the great works of Dalton and Flint, but now the palm must be given to this latest and very best work ever issued on this subject. It is impossible for us to give even a brief epitome of the contents. Here will be found all that is known of physiology and histology, and of microscopy as applied to those sciences. The illustrations are superb and from new plates. The text is of the very best English diction. Landois' Physiology must stand just to the right of Dalton and Flint in every medical library of any pretensions, while the coming and present student will thumb the pages of Landois.

A TREATISE ON THE SCIENCE AND PRACTICE OF MIDWIFERY.

By W. S. PLAYFAIR, M.D., LL.D., etc. Fifth edition from the seventh English edition. With notes and additions by ROBERT P. HARRIS, M.D. Illustrated. Philadelphia: Lea Brothers & Co., 1889. For sale by Robert Clarke & Co. Price $5.00.

This work holds an enviable place in all medical colleges as a standard text-book. This edition within four years after the last attests the demand. Notwithstanding the shortness of this period, it embraces a time when there has been a wonderful advance made in various abdominal operations, notably the Cæsarean operation and the exsective method of treating extra-uterine pregnancy. These are all fully explained and discussed in this edition, bringing the work in all these matters up to the date of issue. This has required a re-writing of nearly all the chapters, as well as a revision of the others.

Hypnotism: Its History and Development. By Fredrik Bjornstrom, M.D., Head Physician of the Stockholm Hospital, Professor of Psychiatry, Late Royal Swedish Medical Councillor. Authorized translation from the Second Swedish Edition by Baron Nils Posse, M. G., Director of the Boston School of Gymnastics. Paper, 30 cents. The Humboldt Publishing Co., 28 Lafayette Place, New York.

A Manual of Dietetics for Physicians, Mothers and Nurses. By W. B. PRITCHARD, M.D., New York City. Published by the Dietetic Publishing Co., New York.

The author has spared no pains to make this little manual complete and valuable. It is written in a style that can be understood by the laity, to whom it will be especially valuable. J.M.F.

The Dublin medical schools are about to consolidate.

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CHEMIST'S CERTIFICATE.

On behalf of the Jury appointed by the Commissioners of the Centennial Exposition for Class XIII, Group 97, we have examined the different specimens of mineral waters, and have ascertained by chemical analysis that the various samples taken from the exhibit of Dr. Enno Sander from St. Louis, Mo., including APOLLINARIS, *single, double and* TENFOLD CARLSBAD WATER, EMS-KRAEHNCHEN, SELTERS *and* VICHY, *were in close accord with the formulas from which the waters are stated to have been manufactured. In consequence of this result the Jury have awarded to the exhibit of Dr. Enno Sander a*

SILVER MEDAL,

the highest award for merit granted in Group 97.

CINCINNATI, OCTOBER, 1888

T. H. NORTON, } *Dept. of Chemistry,*
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The skill of a highly accomplished pharmacist and thorough chemist was required to combine the resinoids in a palatable, effective and elegant form, and at the same time retain and enhance the therapeutical action.

Jno. B. Johnson, M.D., Professor of the Principles and Practice of Medicine, St. Louis Medical College.

St. Louis, June, 20, 1888.

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Jno. B. Johnson

L. Ch. Boisliniere, M.D., Prof. Obstetrics, St. Louis Medical College. St. Louis, June 18, 1888.

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L. Ch. Boisliniere, M.D.

H. Tuholske, M.D., Professor Clinical Surgery and Surgical Pathology, Missouri Medical College; also Post-Graduate School, St. Louis.

St. Louis, June 23, 1888.

I have used DIOVIBURNIA quite a number of times; sufficiently frequently to satisfy myself of its merits. It is of unquestionable benefit in painful dysmenorrhea, it possesses antispasmodic properties which seem to especially be exerted on the uterus.

Wm. H. Tuholske

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An excellent aperient and refrigerant, very acceptable to the stomach.

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CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, November 9, 1889. *WHOLE VOLUME LXII.*

Original Articles.

ON THE TREATMENT OF DEVITALIZED TEETH.

A Paper read before the Academy of Medicine, Nov. 4, 1889, by

A. I. F. Buxbaum, M.D., D.D.S.,
Cincinnati.

My attention last year was called to an article in the *Dental Cosmos*, in which Dr. Truman, D.D.S., of Philadelphia, claimed that arsenic, united with iodoform, preceded by carbolic acid application, would produce in most cases painless devitalization of pulps of teeth.

While serving as assistant for three years to my preceptor, arsenious and carbolic acids were used as a combination for devitalizing, and in most cases there was considerable throbbing for several hours and acute pain prior to the death of the pulp.

In hopes of diminishing this suffering, I experimented with a combination of as. acetate of morphia and fl. cosmoline, but this proved very unsatisfactory and not effective in all cases, and gave me considerable trouble. I then began the use of arsenic and iodoform. I have experimented with this combination for the last fifteen months past, and find it all that I can desire. I take equal parts of iodoform and arsenic and add carbolic acid. I precede this devitalizing preparation by an application of carbolic acid to the cavity and stop up thoroughly. My patients do not complain of any pain except in a few instances.

I now have a few remarks to make on immediate root filling. For several years it has been my practice to treat all devitalized teeth, whether of long standing or after immediate devitalization. I have met with considerable success, perhaps, above the average success. Much has been and is today said upon immediate root filling. Although I was satisfied with my practice of treating all teeth requiring the same prior to filling, yet the method of immediate root filling, advocated by many of our able dentists, appeared so inviting that I was induced to try it. I had two cases of single-rooted teeth, easy of access. I removed the pulps and nerves completely immediately after devitalizing. I washed out the cavities with luke warm water and introduced $HgCl_2$, then washed out with alcohol and dried with hot air; dammed the tooth, filled apex of the same with gold and the rest with gutta percha, and filled with gold. Both cases failed. Immediate root filling may be very much lauded by some, but I look upon it as bold treatment, and think, better be slow and sure.

Of the many drugs for treating teeth, I find $HgCl_2$ very satisfactory, 1 to 1,000, and in pus-forming cavities I use peroxide of hydrogen injections, followed by iodoform paste applications. I think this a most efficacious form of treatment, and use iodoform paste in all cases where pus has accumulated for some time. I mix one-half drop of cinnamon oil with my iodoform paste to disguise the odor.

Too many teeth are treated carelessly. I believe in thorough antisepsis. The average length of time for treating teeth has been with me about six weeks. Patients often become impatient, and the dentist, fearing the loss of the patient, will often fill a tooth prematurely. In cases where the apices of the roots or apex of a root is not thoroughly closed, but allows of a minute opening, careless and forcible treatment in such cases will do more harm than good, setting up undue inflammation and abscess. I have had to deal with just such cases in my practice, and my suspicion being aroused, after having treated a case for some time and finding it does not improve, I generally make an application on cotton, stop up cavity with varnished cotton or a plastic for three weeks; then open up, make a few gentle applications, and the case as a rule does well.

One cannot always treat according to rules prescribed, for one has to deviate. Many dentists become discouraged after many treatments, and so does the patient, who, returning to the office complaining, the dentist, in a fit of discouragement at the request of the patient, removes the offending tooth. I advise in such cases the treatment recommended above. I say too many teeth are treated carelessly. The teeth should be dammed or napkined, and no saliva allowed to enter the canal, and after making an application, the opening should be thoroughly stopped with varnished cotton or a plastic. I generally make two applications per week, sometimes three.

I account for many of the cases of abscessed teeth, through the fact that large gold fillings are inserted and no cappings or medium to resist or break the shock produced by heat and cold, are placed underneath the filling. Again many dentists in themselves produce abscessed teeth by introducing gold fillings in the start by careless and powerful blows with the mallet or plugging instrument, setting up inflammation, producing congestion of pulp, and the patient, returning home, uses the tooth, no palliative having been used. The inflammation increases and abscess results.

If after filling the patient complains, I relieve congestion by strong tinct. iodine application on gum spotting here and there. I have found the application of sulp. ammon. ichthyol very soothing to gums lacerated by clamps and silk ligatures.

Menthol in Neuralgia.—Menthol is very popular as a local remedy for relieving neuralgia of the fifth nerve, and other painful afflictions. Dana advises its internal administration in doses of five to twenty grains to relieve pain. It gives a pleasant feeling of warmth, and stimulates the cardiac action, without increasing its rapidity, and raises the arterial blood-pressure. It is especially useful in megrim and supra-orbital neuralgia, and in the headaches of neurasthenic and anæmic patients, also in sciatica. Saffrol in twenty-drop doses is also good in headache and sciatica.—*Brit. Med. Jour.*

ALARMING CARDIAC SYMPTOMS FOLLOWING TYPHOID FEVER.

By Edward F. Wells, M.D.,
Chicago, Ill.,
Late Prof. Mat. Med. and Pharmacol., Col. Phys. and Surg., Chicago.

Although the custom of permitting the patient or his attendant, in ordinary family practice, to share in the management of his case is one, on the whole, to be commended, yet some very curious, annoying, and even serious consequences may occasionally result therefrom. As an illustration of this proposition the following case may be cited:

A gentleman, aged 37, of good physique and clear medical record, was first seen on Oct. 30, 1884, when the following history was elicited: For two weeks he had been costive and for three days he had been weak, tired and feverish. Recently he has not slept well and has been disturbed by extravagant and frightful dreams, from which he would be aroused in a state of great exhaustion and dread. His head has been aching for a week and his countenance is haggard and expression listless.

From day to day he became more dull and stupid and was almost constantly asleep. His temperature gradually ascended until it reached an elevation of 102.5° on the tenth day. On the seventh day a slight, peculiar cough developed, which was characterized by a series of short explosions of gradually increasing sonorousness and intensity and ceasing unexpectedly. This continued, at intervals, for about a week. On the tenth day there was epistaxis. The appetite, which until this time had remained good, also failed and there was subsequently much repugnance to the taking of food. The tongue, which had been only very thinly coated, now bore a heavy coating and a luxuriant fur. On the twelfth day characteristic diarrhœa appeared, with gurgling and tenderness, continuing for a week, after which the bowels were again confined. On the fifteenth day there was a very profuse perspiration, after which he was no longer drowsy and stupid. On the twenty-fifth day the temperature fell to the normal and convalescence was declared. The appetite became voracious, the bowels acted normally and his strength was rapidly regained.

Two weeks later he visited my office, a distance of three miles, returning without fatigue. During the evening he attempted to count his pulse, and not being accustomed to do so failed to obtain a satisfactory result. This somewhat excited him whereupon he called his wife to make the count for him, which she did, making it 100 per minute. As this was more than it had been during the greater part of his illness his excitement increased and he demanded a recount, which gave 120 pulsations to the minute. Being now thoroughly alarmed and excited his pulse rapidly increased in frequency until it became uncountable. In great haste I was summoned, and on my arrival I found him sitting in an easy chair in a state of frantic excitement and alarm. He was drenched in a cool, clammy perspiration, his expression was one of intense anxiety and his pulse very irregular and about 180 per minute. He was given a hypodermatic injection of morphia and reassured by words of encouragement. An hour later the heart was beating with its accustomed regularity and at the rate of 76 per minute. Convalescence was subsequently unimpeded, and complete recovery ensued in due time.

In this case the patient's wife, an intellegint woman, acted as nurse. She was supplied with a clinical thermometer and at intervals of three hours, day and night, a record was made of the temperature and of the pulse and respiration rate, together with information relating to sleep, food, medicine, urine, movement of the bowels, etc. Of this record she was quite proud, and of it herself and husband had made much of a study. I have no doubt as to the knowledge gained in this manner being the direct cause of the nervous excitement—general and cardiac—above detailed.

KANSAS CITY, MO., October 28, 1889.

Chas. Chadwick, Ottis R. Wyeth, Louis A. Schoen, Geo. J. Schoen, Chas. F. Hermann, Geo. Eyssell, and Horace L. Roy, druggists of this city, were brought before Judge Worthen, to-day, and each fined $500.00 and costs for counterfeiting a trade-mark preparation, known as BROMIDIA.

Selected.

RELATIONS OF THE SEBORRHŒIC PROCESSES TO SOME OTHER AFFECTIONS OF THE SKIN.

By MORGAN DOCKRELL, M.A., M.D.

[*London Medical Recorder.*]

In the June number of the *British Journal of Dermatology*, Dr. Brooke draws attention in a paper to the importance of seborrhœa in relation to some other affections of the skin.

The primary lesions of seborrhœa are as follows:

I. *On the scalp*, which is almost always affected, where seborrhœa exists anywhere on the body. The condition generally met with being a slight greasy scurfiness, varying in degree according to the nature of the skin and the cleanliness of the individual. In some the scales are almost dry, in others the amount of grease secreted is so great that the head appears as if artificially anointed. If the fatty secretion be of a solid nature or of old standing, it forms dirty, yellowish, closely adherent cakes, which, if mixed with a copious desquamation of epidermis, may produce a thick mass which looks as if formed of small blocks of half-dried cheese.

Well-marked seborrhœa may exist for years in conjunction with a thick and vigorous growth of hair, whilst some of the slighter and drier forms are not unfrequently found to have determined a marked defluvium and consequent baldness.

II. *On the face*, the most frequent symptoms are the presence of dull yellowish patches of various consistency. At times they are little more than stains of ill-defined outline, but presenting a slight roughness to the touch. More commonly they are of a marked dull reddish-brown tinge, more or less greasy, and slightly squamous. Very frequently some hyperæmia accompanies the affected spots, which then stand out as reddish blotches, covered with a greasy coating. These chronic hyperæmic patches often last for a long time after all traces of acute seborrhœa have disappeared from them, but the remains with their clear outline and faint reddish or brownish red color are sufficiently distinct, especially when at a distance of two or three feet, to indicate that the process has been at work there.

Their diagnosis is readily confirmed by the existence, generally at the edge of the patches, of papules of various sizes, which are either surrounded with a fringe of broken epidermis or are covered with the typical greasy scales.

Even when no hyperæmic condition is visible, more or less faint stains of a yellow brown color are left as indices of the previous eruptions. As Unna points out, it is the middle third of the face which constitutes the site of predilection, and in a large number of cases the lesions are almost exclusively confined to this region.

The nose, alæ of the nostrils, and nasolabial furrow present the best marked examples of the greasy forms. As the distance increases from the middle line the amount of oily fat tends to diminish, and the squamous covering becomes dries.

There is near the angles of the mouth in dark-complexioned people a conspicuous and disfiguring dirty yellow brown stain, from constant recurrence.

III. *On the limbs and trunk* it occurs in patches, the best marked lesions being situated on the chest and back. In these sites its characters are quite distinct, the outline is not very clearly marked, and quite frequently emerges imperceptibly at its borders into the adjacent skin. The discoloration may be very slight, so as to be hardly distinguishable from the healthy skin, or pigmented with a shade of a faint yellowish brown; or, as is most frequently the case, it presents a faint tint of salmon color. In all cases, however, the skin is covered with furfuraceous scales.

The peculiar salmon tinge which some of the eruptions take on appears to arise from the super-position of the yellow color of this greasy secretion, plus the dirty yellowish color which normally develops in masses of cornified epithelium, glazing over the pink of the subjacent hyperæmia. When no hyperæmia is present, the color is derived from the grease and epithelium alone, and may be either of a deep dirty yellow, as in old secretions of the scalp, or of any shade approaching that of the healthy skin. This condition may prevail for years without much alteration. At times the affected parts become hyperæmic, and the hyperæmia may remain in a chronic form, or it may be quite transitory. In the great majority of cases the disease is limited to the scalp. As Unna insists, it is from this region that seborrhœic affections of the rest of the body almost invariably originate. These constitute the common indications of seborrhœa, and the only ones which are to be found in the great bulk of the patients who present any symptoms of the disease.

Another and very different form of the affection is that described by American writers as seborrhœa corporis. It is most frequently met with over the sternum and between the shoulders. It consists in an outbreak of papular, nummular, or carcinate patches, or gyrate lines made up of a connected series of fragments of circles (Unna), more or less covered with dull-colored, greasy scales. The color is usually of the salmon tinge, but if the scales are removed, the surface of a freshly growing patch, which is always raised, is seen to be of a bright active red color. The affection may spread rapidly, new spots springing up all over the body, and quickly enlarging and agglomerating; or the patches may at once begin to fade in the centre, and to grow in a circinate form. It is generally accompanied by itching, often to a very annoying extent.

Unna noticed that the affection spread downward from the scalp, and my observations fully bear out this statement.

Evidence in favor of lesions being of seborrhœic origin are: (*a*) That they are invariably accompanied by a condition of seborrhœa of the head (Fox, Liveing, Unna); (*b*) that they are often seen to be growing from, and directly continuous, with seborrhœic foci on the head; and (*c*) that they present the same greasy conditions on this surface which are found in the ordinary seborrhœic states.

The relation of seborrhœa to eczema.—The *old* theory was that eczema was a secondary development due to the irritation of the sebaceous secretion.

Unna's view, however, differs entirely from that of his predecessors, in that he regards the whole of the symptoms which have been above briefly detailed as constituting in themselves a form of eczema, to which he has given the name of eczema seborrhœicum.

Brooke, however, states that the existence of typical eczema in connection with seborrhœa is now, of course, recognized by every observer, and I personally go so far as to agree with Unna that seborrhœic eczema in this sense is perhaps the commonest form in which eczema occurs; but to extend the use of the word to the non-inflammatory desquamations of the scalp and superficial furfuraceous patches on the one hand, and to the psoriatiform rings and gyri of *seborrhœa corporis* on the other, seems a most undesirable extension of our definition of eczema. The great mass of those who suffer from seborrhœa exhibit no infiltration even after the disease has existed for years; nor do they present anything more acute than a local hyperæmia, mostly of a transitory character. Papules form, which begin at once to be covered with scales, and may persist and enlarge by slow degrees without any attempt at vesicating. The excretion of fat and epidermis may be very marked and very rapid, and yet be accompanied by but little visible dermatitis; and the dermatitis, even when well marked, may be totally free from papulation, vesication, and even itching. In other cases a very slight amount of seborrhœa may be associated with a rapid and general outbreak of acute eczema, which is quite disproportionate to it both in extent and intensity.

The relation to syphilis. — Unna has shown that seborrhœic eruption frequently leads the way, and determines the site of syphilitic exanthema; and that the seborrhœic states, which had been supposed to follow the syphilides, are really its predecessors.

The relation to psoriasis.—All writers have remarked on the difficulty which may present itself of distinguishing some cases of psoriasis from seborrhœa corporis. The task of making a diagnosis is still further increased by the fact that there are a number of cases, cases which are far from being uncommon, in which typical lesions of both psoriasis and seborrhœa coexist. The sites in which the greatest difficulty occurs are the limbs, more especially the elbows and forearms, and the knees and lower legs in these localities; firm, brightly scaled papules and patches are found, and amongst them, or within short distances, may be seen the rosy papules with the softer greasy scales of seborrhœa. Both eruptions are prone to leave pigmented patches when they disappear, but the seborrhœic are generally of a deeper hue than those of psoriasis; in both, the lesions are apt to recur, particularly on the edges of pre-existing patches, and both are prone to recur periodically, usually in the spring.

The relation to rosacea is very marked, and observation of a large number of cases of rosacea has shown me that seborrhœa of the scalp and of the face is present in nearly every case, and it is certain that the simple removal of the seborrhœa by purely local means will go far, not only towards removing the desquamation and pustulation, but also to allaying the active flushing and chronic hyperæmia.

BALSAM OF PERU IN THE TREATMENT OF OZÆNA.—Practitioners who see much of ozæna know well that it is one of the most intractable of diseases. Even with frequent washing out of the nasal passages with antiseptic lotions and sprays, with medicated bougies, and with cotton-wool plugs applied in the manner recommended by Gottstein, only the most transitory deodorization of the breath from the nostrils can be effected, and patients and their friends are driven almost to despair. Any new suggestion for the relief of this disgusting complaint will therefore be welcomed. Dr. W. Ebstein has lately reported very satisfactory results obtained by Dr. Rosenbach with balsam of Peru. The mucous lining of the nasal fossæ is painted every day with the medicament, and a plug of cotton-wool soaked in it is left in the deep parts of the nose. By this means Dr. Rosenbach has succeeded in cases in which every other antiseptic and deodorizer had been tried in vain. It is not probable, however, that experienced practitioners, who have often been disappointed with the effect of the most promising suggestions for the cure or mitigation of ozæna, will be disposed to pin their faith too tightly on any new remedy, more especially, perhaps, in the case of Peruvian balsam, which seems just at present in some danger of becoming a panacea in the hands of some of our German brethren.—*London Med. Recorder.*

IT is stated (J. Mosse, *Lyon Med.*) that ten minims of tincture of iodine, taken in half a glass of water twice a day, will cause the disappearance of warts. The doctor has tested the drug in ten cases, with success in all.—*Canada Lancet.*

New Subscribers to the LANCET-CLINIC can begin at any time during the year.

ETIOLOGY AND TREATMENT OF ACNE.

[*Boston Medical and Surgical Journal.*]

At a recent International Congress of Dermatology and Syphilography, Barthelemy, of Paris, made a contribution to the etiology and treatment of that common cutaneous disease, acne.

He emphasized the fact that the ingestion of altered or spoiled foods, and sometimes simple indigestion, may give rise to urticaria. Among these eruptions, *ab ingestis*, there are inflammations of the sebaceous follicles, and it is well known that in certain subjects we may produce acne at will by the administration of iodides and bromides.

Starting from this datum it is impossible not to be struck by the relations which connect the digestive functions with acneic eruptions.

More precise notions are now possessed concerning these relations since Bouchard published his researches on the digestive troubles and on the auto-intoxications which are the consequence of dilatation of the stomach. Barthelemy has studied the subject of acne in connection with gastrectasis. Out of 169 cases of acne, in 165 the signs of dilatation of the stomach (clapotement, etc.) were well marked. He remarks that the almost exclusive localization of acne on certain points seems to demonstrate that there is there an elective action of toxic substances, generated in the interior of the digestive tube. He adduces statistics to show that of all cutaneous diseases, acne is far the most frequent in gastrectasis. But if acne sometimes fails to appear, what is never wanting is seborrhœa, that fatty state of the skin which stains the clothing, retains the atmospheric dust, greases silk-paper, etc. We have here the direct effect of the digestive disturbance on the skin. Is the seborrhœa to be regarded as a simple hypersecretion in relation with poisonous ptomaines, or with a reflex vascular disorder? What seems to prove that we have here a simple hypersecretion is that this function commences only with puberty; that in certain women the seborrhœa almost completely gives place to the lacteal secretion, under the influence of lactation;—however this may be, we never have acne without previous seborrhœa. Dilatation of the stomach prepares the soil by enfeebling the organism, by lessening its resistance, and by producing seborrhœa.

Barthelemy insists that in acne we have an eruption which is auto-inoculable, like furuncle, impetigo, ecthyma, and like them, contagious. He has the proof of this in some observations which he has made, in which the conveyance of the disease by contagion was manifest.

Acne at its commencement is a papule, a true papule, flattened, depressed in the centre. It never becomes a pustule without the adjunction of divers microbes. In answer to the question, "What is the pathogenic element?" he says that he believes the *staphylococcus albus* to be the principle *par excellence* of these little cutaneous lesions.

If the pathogeny and history of the disease be such as has been indicated, the treatment is obvious: the dietetic regimen prescribed by Bouchard, and other modern authorities, for dilatation of the stomach, is clearly demanded. Gastro-intestinal antisepsis must be obtained by laxatives, by antiseptic powders of naphthol, prepared chalk, rhubarb, salicylate of bismuth, etc. The general nutrition must be improved; concomitant affections, uterine, hepatic, etc., cured, and suitable tonics administered, to which cod liver oil will often prove an important adjunct. Remedies to prevent gastro-intestinal fermentations, as hydrochloric acid and pepsin, are often indicated. Sulphur baths and cold bathing as reconstituents have a certain utility.

But to gastro-intestinal antisepsis should be joined tegumentary antisepsis. The proper agents for fulfilling this end are the carbolic sprays, antiseptic soaps with sublimate, borax, naphthol, the application of ointments or epithems, such as the phenico-sulphuretted paste, salicylo-boric plaster with oxide of zinc, frictions with black soap, counselled by Laithe,—these, with camphoretted alcohol, are useful. In certain cases the external treatment becomes predominant; as when the acne-papules, like the lesions of scabies or small-pox, have been invaded by the pyogenic microbes, and the inflammation, bursting the barriers of the glandular tube, has spread to the surrounding cellular tissue; recourse then should be had to the red hot plantinum wire, or to punctiform electric cauterizations. This method, when applied to the face, should be practiced with extreme caution, so as not to leave scars. Abscesses should be treated on general antiseptic principles.

It will be seen from the above abstract that the French dermatologist has a hobby of his own with regard to the pathogeny and treatment of acne. It is not probable that other observers will see so necessary a connection between states of the stomach (and especially gastrectasia), and acneiform eruptions, particularly those of puberty. It will, at any rate, be worth the while for physicians, profiting by the experience of M. Barthelemy, to state their cases of acne, and in particular those that have proved rebellious to all the ordinary modes of treatment, from the stand-point which he has indicated; possibly they may now and then find digestive disturbances the *fons et origo mali.*

INFANTILE HYSTERIA. — Drs. Hagenbach-Burckardt and Duboisin (*Centralblatt für Klin. Med.*) agree with the view of Liebermeister, viz., that hysteria is a pathological condition of the gray substance of the brain, and must, therefore, be regarded as a psychical disease, and not a neurosis. They also claim that psychical symptoms are never absent; indeed, in some cases they are the only existing ones. The type of hysteria occurring in children is usually most simple, and, therefore, such cases are especially adapted for the study of the disease. Burckardt and Duboisin have carefully studied the history of twenty-four cases of infantile hysteria, in which predisposition played an important part. They found that in fifty-eight per cent. of the cases a hereditary neuropathic tendency could be traced, while fifty per cent. of the cases inherited tuberculosis. Only three cases, in which the disease was but slight, were free from both the above named predispositions. All the patients, with two exceptions, were anæmic. Two had previously suffered from poliomyelitis anterior acuta. In eight cases only was the initiative cause traced to fear, shock, etc. But few instances of ultimate cure were observed. The majority remained anæmic, and continued to be troubled with either headache, palpitation, nervousness, bodily and mental weakness, weakmindedness, or hysterical psychosis. The prognosis may, therefore, be regarded as unfavorable. This, however, is largely dependent upon early diagnosis and treatment.—*Med. News.*

THE ACTION OF IODIDE OF POTASSIUM ON THE HEART.

[*Med. Press and Circular.*]

At the last meeting of the Académie de Médecine, M. Germain Sée read a very interesting paper on "How Iodide of Potassium acted on the Heart." He commenced by saying that although ten years had elapsed since he introduced into medical practice the treatment of asthmatic and cardiac affections by iodide of potassium, yet nobody inquired how it acted in such cases. He, however, made a very complete and serious research on the modifications of pressure of the iodides of potassium and sodium on the heart, with especial reference to the changes produced or the contractibility of the vessels, and now he submitted to the Academy the results of his experiments. First of all the action of the two salts were not the same, that of potassium *excited the heart and the vaso-constrictor nerves, and consequently raised the pressure of the blood,* while the iodide of sodium did nothing of the sort, at least as far as permanency is concerned, for after a few minutes the blood-pressure fell to the primitive standard. Into dogs injections of both salts (1 in 10) were made, and the blood-pressure taken in the femoral and carotid arteries. The injection was made through the saphena vein. With the iodide of potassium the blood-pressure arose immediately several centimetres, and remained a considerable time stationary. At the end of an hour the gradual descent took place, lasting two or three hours. The vaso-constriction is to be attributed to the potassium, and the vaso-dilatation to the iodine. In general iodine provokes a congestive condition of the mucous of the bronchial tubes and their ramifications, and this state is due to the vaso-dilatation of the vessels of the organs. The first and principal of these therapeutic congestions is that which passes in the respiratory organs, producing a veritable hyper-secretion. Thus it results that the viscous and adherent exudation of the mucous which characterizes the troublesome expectoration of asthmatic persons is softened, impregnated, and replaced by a *liquid* secretion, and consequently air penetrates more freely and the dyspnœa ceases as soon as the iodine commences to act. The heart undergoes in its turn important changes, due as much to the potassium as to the iodine, both as regards its intrinsic or coronary circulation as to its nervo-muscular system, its nutrition and rythme. By the former the cardiac organ is materially strengthened, the circulation in the coronary arteries receives a considerable impulse as well as in the whole arterial system, as a result of its action on the nervo-muscular system and the myocardia in particular. The phenomena due to iodine soon appear, in which are manifested the general vaso-dilatation, and, as a consequence, the heart, in order to propel the blood through its own arteries and into its own tissues, is no longer obliged to furnish the same amount of work as in the former state, as the tonicity of the arteries, the natural obstacle, is modified. Hence the organ, far from being depressed and weakened, beats with renewed energy and strength, and the sphygmograph indicates a full and strong pulse. For a long time M. Germain Sée recognized the utility of iodine in several heart affections, and only in cases where it determined hemorrhage or gastric troubles did he refrain from prescribing it. When the dyspnœa is pulmonary from venous congestion, or œdema, iodide of potassium is given with the best advantage. The cardiac affections which are mostly benefited by this treatment are adiposis, fatty degeneration, weakened heart, cardialgia, nervous or organic irregularity of the organ (arythme), especially in the aged. As to aneurism of the aorta, iodide of potassium was the only remedy that gave real satisfaction. In conclusion, the author said iodide of potassium was the true cardiac agent. Far from being a depressor, it was particularly useful in mitral lesions with debility. It raises the energy of the heart and the vascular pressure. Then, in dilating later on, all the arteries, the flow of blood is facilitated and the organ recovers its contractile powers. M. Trasbot said that his experiments on horses confirmed the opinions of M. Sée as to the action of iodide of potassium in certain affections of the lungs and heart, but he further found that it lowered the temperature and made the animal lose weight. Several times he gave the salt in pneumonia, and in two days the fever fell, the respiration became less frequent, and the horse recovered its appetite.

PHENACETIN.

[*Medical and Surgical Reporter.*]

Phenacetin is one of the latest antipyretics that has come into professional favor; and although it is closely allied in action and in chemical composition to its twin sisters antipyrin and antifebrin, clinical experience teaches that it possesses certain peculiarities which places it in the front rank of this class of remedies. Like the two latter, it is not only useful as a fever reducing agent, but it also displays a remarkable beneficial influence in diseases of the nervous system. It is indeed very probable that all these substances exert their therapeutic properties by virtue of their strong affinity for the nervous system; notwithstanding the fact that this feature was altogether unobserved when they were first introduced to the profession. It is always a cause for much congratulation, because it is an indication of normal development, when, as in this instance, independent researches, carried on in the different branches of the same science, yield evidence of a reciprocally confirmatory character. Previous to the discovery of the antipyretic action of these coal-tar products, there were investigations in progress which showed both from an experimental and a clinical standpoint that the essential lesion of fever consisted in a disordered state of the heat-regulating centres of the nervous system. So long as fever was believed to be due primarily to super-oxidation of the bodily tissues, as was taught by the older pathology, the *modus operandi* of every antipyretic was more or less enshrouded in a cloud of darkness; but when subsequent observation demonstrated that phenacetin and its allies produced antipyresis by reason of their marked affinity for the nervous system, the neurotic theory of fever was so much richer on account of the additional evidence which it received from this quarter.

Whatever its manifestation may be, therefore, it is clear that the fundamental action of phenacetin is concentrated on the nervous system, and it is well to bear this feature of its action in mind while administering it. As an antipyretic it is in many respects superior to either antipyrin or antifebrin. This is true of it in acute as well as in chronic fever. In the experi-

RECENT THERAPEUTIC NOVELTIES.

ANTACID TABLETS, COMPRESSED.

Sir William Roberts, M. D., F. R. S., contributed to the *Pharmaceutical Journal and Transactions* Aug. 24th, 1889, a scholarly paper entitled "Some Practical Points in the Use of Antacid Remedies in Dyspepsia and Gravel." This article has attracted wide attention and so many inquiries regarding it have come to us that we have pleasure in advising our medical friends that we are now prepared to supply in bottles of 100 each, as desired, Compressed Antacid Tablets of the following formula:

Calcium carb. precip., 3½ grains.
Magnesium carb., 2½ grains.
Sodium chloride, 1 grain
Excipient, q. s.

We shall also be pleased to mail to physicians on request a reprint of Dr. Roberts' article.

PIL. SALINE CHALYBEATE TONIC.

(FLINT'S.)

We beg leave to inform the medical profession also that we have placed upon the market, in the form of sugar-coated pills, the Saline Chalybeate Tonic, recommended by Professor Austin Flint, M. D., LL. D., in the New York Medical Journal, May 18, 1889.

The formula is as follows:

Sodium Chloride, 3 grains.
Potassium Chlorate, 3-10 grain.
Potassium Sulphate, 1-10 grain.
Potassium Carbonate, 1-20 grain.
Sodium Carbonate, 3-5 grain.
Magnesium Carbonate, 1-20 grain.
Calcium Phosp., precip., 1-2 grain.
Calcium Carbonate, 1-30 grain.
Iron by Hydrogen., 9-20 grain.
Iron Carbonate, 1-20 grain.

Dr. Flint says of this formula:

Since the summer of 1887 I have given the tonic in nearly every case in private practice in which a chalybeate was indicated. In many cases I have not been able to watch the effects of the remedy, and in many I kept no records. In thirty-three cases which I have noted as cases of anæmia, with loss of appetite, etc., I have more or less complete records. In twenty-two cases I noted very great improvement, in twelve cases improvement not so well marked, and in one case no improvement.

I have also records of five cases of chronic Bright's disease of the kidneys in adults in which the tonic was the only medicinal remedy employed.

These five cases of albuminuria are reported with reference only to the effects of the "saline and chalybeate tonic. In all the cases this tonic seemed to exert an influence on the quantity of albumin in the urine.

In the great majority of the cases of anæmia, etc., in which iron was strongly indicated, the tonic seemed to act much more promptly and favorably than the chalybeates usually employed. In a certain number of cases in which patients stated that "they could not take iron in any form," the tonic produced no unpleasant effects. Reprint of Dr. Flint's article furnished on request.

AN IMPROVED FORMULA OF BLAUD'S FERRUGINOUS PILLS.

Learning that it was the custom of many physicians to use with satisfactory results a pill combining the ingredients of the well-known Blaud formula with arsenious acid, we now supply the following Pil. Blaud's Ferruginous, modified:

Iron Sulph. Exsic., 2½ grains.
Arsenious Acid, 1-40 grain.
Potassium Carbonate, 2½ grains.

The arsenic furnishes antiperiodic virtues to the combination and in this modified form the pill is now largely used.

SUPERIOR GLYCERIN SUPPOSITORIES.

Glycerin suppositories, when first introduced by us, were furnished in paste-board boxes, each suppository being wrapped in pure tin-foil to prevent the deterioration to which it was liable by reason of the hygroscopic character of glycerin.

As a result, however, of experiments conducted during the past summer we have found that these suppositories, if kept in bottles tightly corked, will keep indefinitely without any wrapper, and we are now prepared to furnish them in this form.

As the glass bottles are too heavy for mailing, such suppositories as we have occasion to send by mail, either upon order or as samples, will still be forwarded as before; the tin-foil used being unmixed with lead, and therefore perfectly harmless. The tin-foil should, of course, be removed before using.

We believe glycerin suppositories without any artificial covering, such as tin-foil or paraffin, which has also been used for this purpose, will be far more popular with physician and patient, and serve to prevent, what sometimes occurs, the use of the suppository without removal of the wrapper. Send for descriptive circular.

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WITHOUT DETRIMENT TO THE PATIENT.

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LOUISA EMERY, M.D., Leipsic, Ohio, says:

"It will do all that is claimed for it."

J. D. POPE, M.D., Monticello, Ark., says:

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[illegible] W. Seventh Street, Cincinnati.

ence of others, as well as in our own, it has been known to reduce acute fever in cases in which both of the latter agents had signally failed. Not only does it appear to be the most effectual antipyretic; but it also seems to be free from producing any toxic effects unless it is given in very large doses, while both antipyrin and antifebrin are prone to give rise to these—the former to a cutaneous rash, and the latter to a cyanotic condition of the blood.

Phenacetin is especially valuable in suppressing the fever of pulmonary consumption. In this as in every other chronic form of fever, large and probably double doses are required to achieve the same end as that which is obtained in acute fever. Of course no iron-clad rule can be laid down as to how much should be given in any individual instance. The best guide that can be followed is to give it "for effect." If four or five grains administered every four hours do not suffice to bring down the temperature, there should be no hesitation in giving from ten to twenty grains. Ordinarily it will be found, however, that from five to ten grains is all that is required in such cases. It also has a modifying influence on other symptoms of this disease. Simultaneously with the reduction of fever, the cough becomes easier, the expectoration diminishes, and a general improvement in the patient's condition follows. From this it will be seen that phenacetin does good not only as an antipyretic in pulmonary consumption, but also as a constitutional tonic—a *role* which it undoubtedly plays through its action on the nervous system; and for this reason it renders useful service, and its administration should be continued in three- or four-grain doses three or four times a day after the fever has abated.

That which is true of phenacetin in pulmonary consumption also holds true in chronic bronchitis, whooping-cough, migraine, neuralgia, neurasthenia, etc., when it is given in three- or four-grain doses; and from all appearance it bids fair to outrival antipyrin and antifebrin in the treatment of all adynamic conditions of the nervous system.

PROPHYLAXIS OF SCARLET FEVER. — In a recent address before a medical society, Bäumler laid down the following rules to be observed in regard to the prophylaxis of scarlet fever:

1. Isolation should begin as early and be carried out as stringently as possible.

2. Isolation must be maintained till all desquamation, even on the palms and soles, is completed.

3. Persons in charge of patients should not mingle with other people, or if this be impossible, every precaution should be taken in the way of disinfecting the hands, clothing, etc., to render the danger of contagion as small as possible.

4. The air in the sick-room should be changed several times a day by opening the windows wide. Care must always be be taken not to expose the patient to draughts.

5. All the wash is to be first soaked in a three per cent. solution of carbolic acid, and then boiled with soft soap. The clothes worn just before the beginning of the illness and during convalescence are to be disinfected by passing hot steam through them. Instead of handkerchiefs, rags that can be burned as soon as used are to be employed. Shoes must be wiped, inside and out, with the carbolic solution. The hair should be cut short at the beginning, and the mouth frequently cleansed.

6. For disinfecting painted or papered walls, rubbing with bread that is then to be burned is the best means. In many cases the paper had best be taken from the walls and new applied. Where walls and ceilings are undecorated they should be freshly calsomined. The wood-work, including the furniture, is to be scrubbed with the carbolic solution. Carpets, mattresses, curtains, etc., must be subjected to the action of steam. The room used by the patient should remain unoccupied, with windows open, for some time after he has left it.

7. Patients must not be transported in public conveyances, but the community should have at its disposal for such purposes easily disinfected ambulances.

8. The possibility must not be overlooked of contagion being carried by a third person, by toys, by pet animals, by food, etc.—*Am. Jour. of Med. Sciences.*

DR. GRAVENIGO of the University of Padua has lately grafted the cornea of a chicken upon a human eye with the result of forming a very transparent, shining, convex cornea.

TREATMENT OF ASTHMA.

[*Canada Lancet.*]

Within a recent period we have noticed in our exchanges many articles on the treatment of asthma. As to the remedies recommended for this disease, there is no end. With no intention of deprecating the value of several old and well-tried remedies, we shall now only refer to agents which have recently forced themselves to the foreground. Of these perhaps citrate of caffeine stands first. The dose is one to five grains dissolved in warm water. It does not appear to be a very dangerous agent, since, in one instance, a patient took sixty grains by mistake, without fatal consequences. Caffeine is said to afford very prompt relief. Arsenic, in the form of two or three minims of Fowler's solution, is reported as making striking cures in appropriate cases. Arsenic has the peculiar property of supporting respiration, as, for example, in making ascents. Its beneficial effect in asthma is no doubt due to this property. Iodide of potassium is sometimes combined with Fowler's solution. A valuable combination in the bronchitic form is iodide of potassium and carbonate of ammonia. Chloral hydrate, either alone or in combination with bromide of potassium, is also followed by excellent results in certain cases. Cocaine in doses of one-sixth of a grain of the muriate, given in the form of tablets, has been very highly recommended for the relief of the spasm. In the form of stagnant respiration with congested lips and nose, and cold extremities, strychnia has been found highly useful. The liquor may be given in doses of from three to five drops with dilute phosphoric acid. When defluction from the mucous surface is very profuse, belladonna probably answers best. Medium doses should be given every four hours. Grindelia robusta a short time ago was largely used; but it failed to come up to expectations, and is now much less used. Quebracho is also a remedy in much repute.

We occasionally meet cases of continued distress despite the use of ordinary means. In these cases there is usually much bronchial tumefaction and dryness. In cases of this class nothing can equal one-fourth grain of pilocarpine with one-fourth grain of morphine, administered hypodermically. The relief is prompt, the tumefaction subsides, and is followed by profuse expectoration. As to change of climate, experience shows that the asthmatic should not seek a dry atmosphere. A warm, moist atmosphere is the most suitable. In mild cases a mere change from one locality to another may create immunity from this harassing trouble.

The remedies here mentioned, which are culled from a large number of remedies in use, seem to be the ones most relied on at the present time. It must not be understood that the remedies in this list are to be depended upon in symptomatic asthma, when the condition is merely a symptom of a disease usually of a much graver nature. The bronchial muscles are here in a normal condition, some probably serious organic trouble being the cause of the symptom, and requiring a separate treatment, as indicated by the pathological conditions.

The Prognosis of Albuminuria. — Dr. Johnson, in an address on the subject of albuminuria, before the British Medical Association, advanced the following propositions:

1. The presence of the albumen in the urine, though small in amount and intermittent, is always pathological.

2. The practice of testing the urine in all cases of ailments, even the most trivial, —the importance of which for years he has insisted upon,—has led to the detection of albuminuria in many youths and adolescents, who are especially liable to be exposed to the commonest of exciting causes, namely, cold and wet and over-fatigue, and who have not lived long enough for the ultimate evil results of a neglected albuminuria to become developed.

3. The albuminuria, whether intermittent or persistent, of persons apparently in good health has no such special features as to require it to be designated by such misleading terms as "physiological," "functional," "cyclical," and "the albuminuria of adolescents." The last term is especially inappropriate, since the condition is of most common occurrence in both sexes and at all periods of life, from childhood to extreme old age.

4. In almost every instance these cases of albuminuria may, by a careful inquiry, be traced back to some recognized exciting cause.

5. Nearly all cases of acute nephritis pass through the stage of intermittent albuminuria, in their progress towards convalescence; and, on the other hand, the majority of cases of intermittent albuminuria may be traced back to a more or less remote attack of acute nephritis.

6. While, on the other hand, intermittent albuminuria — even though it may have existed for years—may be looked upon as a curable condition if only its exciting causes can be ascertained, avoided and counteracted by suitable dietetic, medicinal and hygienic means; on the other hand, the neglect of such means may convert an intermittent into a persistent albuminuria, although for many years it may be unattended by symptoms of disordered health, ultimately results in a fatal degeneration of the kidneys.

7. Since it is notorious that albumen, even to a very large amount, may exist in the urine of persons who are apparently in perfect health, it is obvious that the urine of every patient, no matter how trivial his ailment, and the urine of every applicant for life insurance, no matter how robust his appearance, should be tested for albumen.

8. For many years past the fact that albumen may be abundantly present at one period of the twenty-four hours, and entirely absent at another, has been publicly demonstrated, and ought to be generally known. It is therefore necessary to test the urine, not only after rest in bed and before breakfast, but also after food and exercise.—*British Med. Journal.*

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EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, November 9, 1889.

The Week.

PROPHYLAXIS, ANTISEPSIS, AND SANITATION.

These are the grand watch-words of the medical profession of the age. They are the touch-stones that memorialize our profession as a truly Divine art. In no other calling or business do we find its votaries engaged in making strenuous efforts to abrogate channels of trade and commerce. In no other profession or trade do we observe men engaged in trying to limit the spread of any rational means that will add to the extension and revenues of their occupation. Rarely, an individual oversteps the usual lines, and is at once heralded as a reformer, a philanthropist, a great public benefactor.

The lesson to be drawn from this is that physicians should on all proper occasions magnify their own calling. By virtue of their education, observation, and experience they are especially fitted to direct the acts and management of boards of Health and advise in all sanitary movements.

It is patent that whenever the functions of the medical profession are assumed by the laity it is at once noticed that they quickly take up and adopt the superstitions and traditions of ignorance and the times when the people walked in darkness, —when amulets, incantations, astrology, and soothsaying held sway over the minds of men. Inferentially we were fain to believe that all such boogery had been legated to the past, and we are actually startled, as if from a dream, when we read in an East Liverpool, Ohio, paper of recent date that the Board of Health of that place

"*Resolved*, That we recommend that every child wear next its person, and suspended by tape from the neck, a little sack made of open material, containing equal proportions of gum camphor, gum assafœtida, and carbonate of ammonia. Also, that onions be freely used as an article of diet and the children be required to partake freely thereof once a day. That a small portion of flour of sulphur be given every third evening upon retiring. And that on the first symptom of sore throat a physician be called.

"The last request may at first glance appear to some unwarranted, but we deem it of the utmost importance, etc.

"Signed by order of the Board of
Health: John H. Burgess,
"Jas. A. Calhoun, *President.*
Secretary."

In our vision it seemed as if we were living in the light of God's countenance and really dwelt in His country, but here find a nook where amulets and spooks apparently still have sway over the faith and intelligence of a people that know enough to have a Board of Health,. and which recommends that a physician be called on the manifestation of symptoms of sore throat, even if they do apologize for making so apparently unwarranted a request. Light is evidently breaking through a rift in the cloud and fog that seems to have overshadowed that particular spot. The recommendation to at once go for a physician reveals an intelligent groping for aid that must soon place the amulet bag on a shelf with the other *bric-à-brac* that are preserved as relics of antiquity.

The "Medical Mirror." — This is the title of a new medical monthly to be issued in St. Louis, the first of the year, with Dr. I. N. Love as its editor. To say or prognosticate that it will not go would be a plea of ignorance of its editor and his working capacity, as well as of the innumerable number of his friends, every one of whom will show his loyalty by sending in a cash subscription. As for ourselves, we gladly welcome him to a place in the editorial ranks. Dr. Love's experience as whilom editor of the St. Louis *Review* will enable him at once to issue a nearly ideal monthly. Our best wishes are for the *Mirror*.

SOCIETY NOTICES.

Academy of Medecine.—

Monday, November 11, Dr. Zenner will read a paper; subject: "The Examination of a Case of Insanity."

Cincinnati Medical Society.—

November 12, President's Address, Dr. Holmes, "Recent Progress in Ophthalmology and Otology;" Dr. Edwin Ricketts, "Specimens of Double Pyosalpinx, Extirpated Kidney, and Umbilical Hernia;" Dr. Wm. Carson, "Alleged Hydrophobia."

The American Academy of Medicine.—The American Academy of Medicine will hold its annual meeting at Leland's Hotel, Chicago, Ill., on Wednesday and Thursday, November 13 and 14, 1889. Richard J. Dunglison, M.D., Secreary.

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A fee of $5.00 will be charged for such examinations. Leonard Freeman, M.D.,
J. C. Oliver, M.D.,
Otis L. Cameron, M.D.,
Oliver P. Holt, M.D.,
Curators and Microscopists.

Are prepared to make examinations of river water, milk, etc., for the typhoid bacilli.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending November 2, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	4	..	...	..	...	..	...	..	...
2nd	...	..	...	..	...	..	...	1	...	..	...
3rd	2	..	...	..	...	..	3	..	...	..	...
4th	...	..	...	..	...	..	3	..	...	..	1
5th	...	..	...	..	...	..	2	..	...	..	...
6th	...	..	...	..	...	..	...	..	...	..	...
7th	...	..	...	..	...	..	...	..	...	..	...
8th	...	..	...	..	...	..	...	..	...	..	...
9th	...	..	...	..	...	..	...	..	...	..	...
10th	...	..	...	..	...	..	5	..	...	..	...
11th	...	..	...	..	...	..	2	1	...	..	...
12th	...	..	...	..	...	..	1	1	...	..	..
13th	...	..	...	..	...	..	3	2	...	..	...
14th	...	..	...	..	...	..	1	1	...	..	1
15th	...	..	2	..	...	..	2	..	...	..	...
16th	...	..	...	..	...	..	2	1	...	..	...
17th	...	..	...	..	...	..	1	..	...	..	...
18th	...	..	...	..	...	..	...	1	...	..	...
19th	1	..	...	..	...	..	1	1	...	..	1
20th	...	..	...	..	...	..	1	1	...	..	...
21st	...	..	1	..	...	..	1	1	..	..	...
22nd	1	..	...	..	...	..	2	..	...	..	...
23rd	...	..	1	..	...	..	2	1	...	..	1
24th	3	..	...	..	...	..	...	..	...	..	...
25th	...	..	...	..	...	..	...	..	...	..	...
26th	1	..	...	..	...	..	...	..	...	..	...
27th	...	..	...	..	...	..	...	..	...	..	...
28th	...	..	.	..	...	..	2	1	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	1	1	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	..	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	..	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	8	..	8	..	...	..	35	14	...	..	4
Last week	3	..	1	..	4	..	36	8	...	5	2

The following is the mortality report for the week ending November 2, 1889.

Croup	4
Diarrhœa	2
Diphtheria	14
Entero-Colitis	1
Other Zymotic Diseases	6—27
Cancer	4
Phthisis Pulmonalis	20
Other Constitutional Diseases	5—29
Apoplexy	3
Bright's Disease	2
Convulsions	1
Heart Disease	4
Liver Disease	2
Pneumonia	10
Other Local Diseases	23—45
Old Age	3
Premature Birth	4
Other Developmental Diseases	4—11
Accidental	3
Deaths from all Causes	115
Annual death rate per 1000	18.40
Deaths for corresponding week in 1888	88
Deaths for corresponding week in 1887	160

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 40 observers (embracing 20 counties) show the following diseases to prevail for the week ending Friday noon, November 1, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Bronchitis, acute	12	33
Tonsillitis	12	28
Diarrhœa	12	22
Intermittent Fever	6	14
Rheumatism (acute)	6	9
Pleurisy	6	6
Typhoid Fever	5	9
Typho-Mal. Fever	3	5
Remittent Fever	3	5
Pneumonia	3	4
Scarlet Fever	3	3
Diphtheria	2	4
Cholera Morbus	2	2
Erysipelas	2	2
Whooping Cough	1	3
Dysentery	1	1
Cholera Infantum	1	1
Consumption (Pul.)	0	0
Croup, membranous	0	0
Measles	0	0
Puerperal Fever	0	0
Cerebro-Spin. Men.	0	0

REMARKS.

Diphtheria reported by observers at Albany and Sugar Grove. Reported by health officers: Toledo, 25 cases, 4 deaths; Columbus, 20 cases, 2 deaths; Dayton, 15 cases, 1 death; Akron, 1 case; Sprinfield, 10 cases; Cambridge, 3 cases; Ravenna, 1 case; Youngstown, 1 case, 1 death; Findlay, 1 case; Piqua, 1 case; Wellston, 1 case, 1 death; Mansfield, 7 cases, 3 deaths; Washington C.H., 2 cases.

Scarlet Fever reported by observers at Sugar Grove, Dupont and Woodville. Reported by health officers: Toledo, 2 cases; Columbus, 4 cases; Dayton, 1 case; Akron, 3 cases; Youngstown, 1 case, 1 death; Lima, 2 cases, 1 death; Springboro, 5 cases; Zanesville, 3 cases; Massillon, 6 cases; Crestline, 3 cases; Canal Dover, 2 cases; Piqua, 2 cases; Findlay, 3 cases; Ravenna, 4 cases; Wellston, 1 case; Washington C.H , 1 case, 1 death.

Typhoid Fever reported by observers at Rogers, Wadsworth, Delta, Alton and Sharonville. Reported by health officers: Salem, 1 case; Springfield, 8 cases; Bloomville, 1 case, 1 death; Defiance, 2 cases, 1 death; Conneaut, 2 cases; Youngstown, 3 cases; Washington C.H., 1 case 1 death.

C. O. PROBST, M.D., Secretary.

Bibliography.

THERAPEUTISCHE NOTIZEN DER DEUTSCHEN MEDIZINAL-ZEITUNG. (Therapeutic Notes of the German Medical Journal.

DR. JULIUS GROSSER. Berlin, 1889.

The exceedingly practical character of this popular semi-weekly medical journal is further manifested by the issue of these therapeutic notes, embracing in a succinct form clippings from various medical journals in all languages during the years 1880–1889. Not only are the articles of materia medica—officinal and unofficinal in the German Pharmacopæia — fully enumerated in alphabetical order, but special and modern methods of treatment under the headings of the different diseases are given in the same order, so that this little work forms a very complete and ready reference-book to the busy practitioner. We congratulate the subscribers to this popular German medical periodical for this renewed testimony of liberality on the part of its publisher. W. H. W.

TAYLOR'S CLINICAL ATLAS OF VENEREAL AND SKIN DISEASES: Including Diagnosis, Prognosis, and Treatment.

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DOES SALTING MEAT DESTROY BACTERIA?—Professor J. Forster, of Amsterdam, has published (*Weekblad van het Niederlandsch Tijdschrift voor Geneeskunde*) an account of some investigations made in his laboratory by himself and Herr de Freytag, having for their object the determination of the effect of the common process of salting or pickling meat on various forms of bacteria. It was found that cholera bacilli were soon destroyed under the influence of abundance of salt, usually in a few hours; but that typhoid bacilli, pyogenic staphylococci, the streptococci of erysipelas, and the bacilli of porcine infectious diseases frequently retained their vitality for several weeks, or even months, in spite of the presence of abundance of salt. The same was also true of the bacilli of tubercle. In some cases these bacilli were found alive after being two months in pickle, their vitality being proved by their capacity for infecting new cultures. Portions of the viscera of a tuberculous animal, preserved for a considerable time in salt, were found capable of causing tuberculosis in a healthy animal when introduced into its peritoneal cavity. Experiments on the spleen of an animal which had died of malignant anthrax showed that salt possessed the power of destroying the bacilli of this disease in about eighteen hours. These, as well as cholera bacilli, were found to require seven and one-half per cent. of salt to destroy them. From these facts it would appear that salting or pickling has but little destructive effect on many of the more common forms of bacilli liable to be found in diseased meat.—*British Med. Journal.*

SACCHARINE.—Dujardin-Beaumetz having been quoted as saying that saccharine was injurious, writes to the *Journal de Med. de Paris* that he was misrepresented. He regards saccharine as a most valuable acquisition in the dietetic treatment of diabetes. But what he had protested against was its use in the adulteration of food. Such use, he maintained, was not only fraudulent but was injurious; not because the substance is in any sense poisonous, but because it is innutritious, and the consumer gets what he supposes is a food but which is not.—*Med. Record.*

THE VALUE OF BEEF-TEA AS A NUTRIENT.

[*The Canada Lancet.*]

This is an age of iconoclasm, not only in the spiritual world, but also in medicine. The man who, a few years ago, would have had the temerity to question the value of beef-tea as a food, would have been looked upon as a fit subject for an insane asylum by a majority of the profession. And, indeed, it is by no means certain that even yet there does not exist in the minds of not a few medical men the idea that the ever-popular and ubiquitous beef-tea is the sheet anchor in those diseases attended by failing strength and imperfect powers of nutrition. To say that the medical profession as a whole is educated up to the point of believing beef-tea to be almost useless as a food, would be, we fear, to take too optimistic a view of the scientific attainments of that profession. While this belief obtains in the minds of some medical men, it is almost universal with the laity, and the good neighbor who makes and carries to the patient a bottle containing the strength of two pounds of beefsteak is firmly convinced that if the sufferer does not gain strength from that decoction he will not from anything else, and that whether acting in the capacity of neighbor or nurse, she has done all that can be done in the way of alimentation. How few people but look surprised—and something more—when the physician tells them that their much-loved and always-trusted beef-tea is a delusion, as to its alleged properties as a food. Indeed, that idol is not so easily thrown down, and the physician's *ipse dixit*, nothstanding, the worshippers will still offer it a willing and not half-hearted service, not infrequently to the detriment of the patient and to the serious interference with the physician's plan of treatment. For if beef-tea be smuggled in to a patient and he is buoyed up by frequent libations to this goddess, early in fevers and other wasting diseases, he is simply placed in the position of one who uses up his capital before the financial crisis comes, and when the dread day is at hand he has no bullion to meet the run on his bank. The beef-tea has assuredly made him feel better at the time, as, indeed, whisky or brandy would have done with less ulterior harm, but has wasted his force by unlocking it and rendering it potential, without adding anything appreciable in quantity, or at all commensurate with the amount needlessly squandered by the exhibition of the *stimulant*, unwisely given in the belief that it is a food or force producer.

Patients and their friends cannot be expected to understand this matter, but it is the duty of every practicing physician to make himself acquainted with the true value of this much-vaunted and entirely over-estimated remedy, and by a clear understanding of the place it really occupies, to be able to so impress his clientèle, that a new order of things may be introduced in this matter. We must educate our patients in a great many directions, and we believe that in none is there more need for a hearty belief by the people at large than in the inutility of beef-tea as a *food*.

It would render this article too long to give the chemistry of this compound and to demonstrate the facts stated above, but in our next issue we shall undertake to do so, in order that our readers may have a reason for the faith that is in them, if those who still hold out for beef tea will be convinced.

Effects of our late War on Soldiers.—Dr. Coe, in the *N. Y. Med. Journal*, calls attention to the fact that nearly all the prominent generals on both sides of the late war have died prematurely. He says that observations made during three years' service in the late war, and a service of several years as pension examiner since, indicate that those soldiers who bore the tremendous hardships and privations of the field without becoming disabled thereby, have since become prematurely old and decrepit, some of them without any assignable cause save the premature expenditure of the reserved vital forces; others from faulty nutrition, indicated by degeneration or sclerosis of the spinal cord and arteries, and resulting disease of the heart, and chronic rheumatic troubles affecting mostly the spinal and sciatic nerves.

We trust that all state societies will enact as one of the conditions of membership the continuous membership in a local society, as has been done by the California State Medical Society.—*American Lancet.*

BRAIN SURGFRY IN FRANCE.

[*London Medical Recorder.*]

At a meeting of the Paris Académie de Médecine, on August 20, Dr. Lucas-Championnière gave a summary of his operations on the brain, and related the following case. A man, aged 53, had, two years previously, had an attack of apoplexy which had left behind it paresis of the right lower limb, together with some difficulty of speech, contracture of the hand, and epileptiform seizures. These symptoms were gradually increasing in severity. A hæmorrhagic focus was diagnosed about the middle portion of the ascending frontal convolution. The skull was trephined over the middle of the 'Rolandic line,' the opening touching the anterior half of the motor zone. On incising the dura mater, there was seen in front of the vein lying in the fissure of Rolando a sort of opalescent membrane formed by the fusion of the arachnoid and the pia mater, and covering an old cerebral hæmorrhage, which occupied the substance of the ascending frontal convolution. The outer layer of this deposit was laid freely open, the rust-colored *débris* removed from its interior, and the cavity washed out with carbolised solution (1 in 20) and sublimate lotion (1 in 1,000). With the exception of an epileptiform attack on the following day, which ceased on removing a drainage-tube which had been left in the wound, the improvement in all the symptoms was rapid and permanent. Dr. Lucas-Championnière presents this case as a new departure in brain surgery, there having been no previous instance in which trephining has been performed for spontaneous cerebral hæmorrhage. He gave the following summary of his work in this department of surgery. 1. *For giddiness and pains in the head*: four patients, nine operations. In two cases, complete and permanent cure; in one of these the patient was trephined four, in the other three times. 2. *Epilepsy following fracture of skull*: four cases, all cured. 3. *Severe pain following blows on the head*: two cases, both cured. 4. *Incomplete right-sided paralysis with epileptiform crises*: one case, very greatly improved by removal of a bony overgrowth of skull. 5. *Hydrocephalus*: one case, with temporary improvment. 6. *So-called idiopathic epilepsy*: eleven cases. Three cases apparently cured, three others considerably improved. These results are, in Dr. Lucas-Championnière's opinion, 'very important, if the poverty of our therapeutical resources against epilepsy is taken into account.' These had been entirely exhausted in the course of those cases, including, in the more recent of them, the application of the actual cautery to the skull. At a recent meeting of the Société des Sciences Médicales de Lyon, (*Lyon Médical*,) Dr. Mouisset showed a case in which trephining had been successfully performed for aphasia. The patient was a man, aged 29, of alcoholic, and probably syphilitic, antecedents, who had suffered for about five years from epileptic attacks. A recent fall had been followed by prolonged unconsciousness and persistent aphasia, with paresis of the right arm, slight paralysis of the face and tongue on the same side, and 'Jacksonian crises.' He was trephined by M. Saboulay, who found a hæmatoma of the dura matter. The hæmorrhagic accumulation was removed, and the cavity cleaned out. The next day, while the plugs, which had been left in the wound for fear of hæmorrhage, were being taken out, the patient spoke some words distinctly for the first time since his fall. Improvement was steadily progressive, and the aphasia disappeared in eighteen days.

THE DIAGNOSIS OF LARYNGEAL ULCERS.—Professor Schnitzler still holds to his oft-repeated opinion that a catarrhal ulcer may be diagnosed from a specific by means of the laryngoscope. It must be remembered that Eppinger, Heinze and Virchow give it as their experience that there is no such thing as a catarrhal ulcer; Dr. Schnitzler contends that they, as pathologists, may be right in holding that opinion, but every laryngoscopist he thinks must meet daily a number of erosions and ulcerations that are not tuberculosis. He locates the position of these erosions and ulcers to the posterior part of the vocal cords, between the arytenoid cartilages, which is common in singers, speakers, etc., as well as those that smoke, drink, and the like, and that by the constant movement of these parts, the inflamed mucous membrane becomes eroded and finally ulcerated. The ulcers in this case assume a round or oval shape according to the site, but are always to be distinguished from the tuberculous ulcer by their margins and surroundings

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being more hyperæmic, while the tuberculous ulcer has an anæmic appearance. The catarrhal is more superficial, but if long enduring it invades the deeper tissues, and may even become troublesome, but if properly treated will heal kindly, leaving no traces of lost tissue. He admits that the difficulty of diagnosis of the simple catarrhal ulcer and the pulmonic tuberculous ulcer is very great; but even there careful observation can separate the two ulcers, which may be immediately confirmed by examining the secretions of the ulcer for the tubercular bacilli. It can be understood why pathologists cannot find an ulcer from simple catarrh; it is not fatal, and where the consequence has proved fatal, the early catarrhal ulcer has healed up. It is urged in favor of a tubercular ulcer that it is found to be tuberculous at the end, though no discovery of the specific bacilli can be observed at first. That may be true, but the catarrhal ulcer may have opened the channel for the transmission of the bacilli from the lung by the sputa passing over the site where the catarrhal ulcer offers a favorable abode for the multiplication of the microbe, when auto-infection is the result. In support of possibly differentiating these ulcers, he quoted Dr. Herying's case, which he related at the Paris International Congress. —*Med. Press and Circular.*

COLON FLUSHING IN TYPHOID FEVER. —Dr. Buchan presents the following conclusions in regard to the above:

1. That from one to three quarts of cold water can be easily and safely passed into the colon, which will rapidly lower a high temperature.
2. That I believe, in some of the cases, the water passed the ileo-cæcal valve, entering the small gut.
3. That tympanitic distension will always disappear with passing away of the water so injected.
4. That putrefactive fermentation of the bowel-contents is prevented by such use of water.
5. That toxic substances are more rapidly absorbed by the cæcum than by any other portion of the intestinal canal, and that, by a judicious and careful washing with antiseptic water, we can prevent the absorption of such toxic substances, and prevent and modify general systemic poisoning.—*Med. Record.*

THE AIM OF RESEARCHES INTO PUERPERAL WOUND INFECTION.

[*Med. Press and Circular.*]

This subject has been elucidated in a recent memoir of Dr. E. Bumm, of Würzburg, in the *Arch. f. Gynakol.*, xxxiv, Bd. 89. It is an attampt on the part of the author, in a review of our knowledge of the subject, to determine how far our present knowledge serves to explain the origin of these diseases and to point out what still awaits an explanation. The two classes of disease, wound intoxication, sapræmia, and wound infection still hold their ground. In the first form albuminoid substances are decomposed by fungi, the exact nature of which is still unknown. Putrefaction recognizable by the sense of smell is not necessary to produce the poison. Until these organisms are known much must remain unexplained; the chemical composition of the poison, the conditions under which it is absorbed, to what extent the blood and lymph channels are implicated, and, finally, in what way the organism gets rid of the poison; all these points await for their solution the recognition of the organism or organisms producing the train of symptoms. In the infective form of puerperal fever micro-organisms and almost exclusively cocci in chains enter the living tissues, multiply, and alter the chemical constitution and functions to such an extent that death ensues. This constitutes the difference between the two forms of fever. It is, further, almost certain that the cocci of puerperal fever are identical with the streptococci of wound infection. Whether these cases are to be distinguished with certainty from the streptococci of erysipelas, or whether they are one, and whether the different manifestations are determined by the degree of virulence, the character of the tissues attacked, or the mode of inoculation, still remain unsolved questions. With the solution of them will also be determined the relationship between erysipelas and puerperal fever. In diphtheria and scarlet fever, a secondary infection with streptococci may lead to puerperal fever. The streptococci of wound infection have great tenacity of existence and development. They are very often met with in dust, and the possibility must be recognized of childbed fever being set up without direct contact, just as erysipelas has been known to have been caused by the proximity of a dust-bin outside a window. The reasons for the very varied phenomena presented from the action of streptococci and pyogenous staphylococci have also still to be determined. At present we know not why the same micro-organism in one case causes a harmless abscess and in another a fatal wound infection. Possibly in the latter case the micro-organism does not act alone, but in combination with a chemical poison that renders the tissues and the organism less capable of withstanding the attacks of the microbe. Only when we are acquainted with the causes of the malignancy of the microbes of wound infection shall we come to understand cases of localized puerperal sepsis in which the infection does not become general. The author denies the possibility of infection from healthy genital secretions. The germ always comes from without, and antisepticism depends on keeping it at a distance from the wounded genital tract. The disinfection of the external genitals is therefore sufficient; sterilization of the internal genital tract is in fact impracticable, and if practicable it would still be superfluous, and consequently a work of supererogation.

THE MOST PROBABLE PERIOD OF CONCEPTION.—Schneider (*Memorabilien*) thinks the most probable time of conception is for four days preceding the menstrual flow and the eight days following, twelve days in all. In support of this he instances the Mosaic law, which forbids intercourse for fourteen days after menstruation. The Jews were very prolific, and Schneider believes the most fruitful intercourse is before menstruation, when coition favors the rupture of the ovisac; after menstruation he believes coition is less often followed by conception. Of course, during the four days previous to the flow the spermatozoa would retain their vitality in the genital passages of the female, and thus be ready to fecundate the ovum when it entered the uterus.—*Canada Lancet.*

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TOLERANCE OF OPERATIONS ON THE LIVER.

[*Med. and Surg. Reporter.*]

Professor Ponfick, of Breslau, has been for a number of years engaged in making experiments in regard to the relation between the liver and certain anomalies in the formation of blood; and, in the course of these investigations, he has made some very striking discoveries, which, although not directly connected with the object of his investigations, are yet of very great importance. One of the most curious results of his experiments has been the discovery that the animal functions may be conducted without serious disturbance even after the loss of a very large portion of so important an organ as the liver. In some cases, operating with strict antisepsis, he succeeded in removing as much as three-fourths of the liver, either at several sittings, or in one single operation; and the animals upon which he experimented did not lose their lives, nor seem to be seriously disturbed in their health. In hundreds of experiments, in which he removed sometimes one lobe and sometimes another, the animals remained, in a considerable number of cases, perfectly well for months, and even for as long as a year.

Clinical experience has already taught us that the whole of the liver is not absolutely essential to health, because large portions of this organ have been practically destroyed—as in the case of echinococcus and profound fatty infiltration—without any disturbance of the general functions of the body. But this, as Ponfick says, is hardly to be compared with the sudden and immediate removal of large portions of an organ which is supposed to be so important to health. The explanation of this curious fact seems to be that the liver has a wonderful power of reproduction. Ponfick found that, within a few days after the removal of portions of the liver, the work of its reproduction began, and that it proceeded with great rapidity to completion. In certain cases, he found that within a period of a few weeks as much was reproduced as had been removed; that is, twice as much as had been left behind.

These investigations have an interest altogether outside of that which is absolutely scientific, because it cannot fail to influence the development of abdominal surgery, if it is understood that large portions of the liver may be removed without serious danger to life.

THE VALUE OF SUBCUTANEOUS SALINE INJECTIONS IN ANÆMIA.—The *Archiv. f. Gynäkol.*, xxxiv Bd., 1889, contains a report by Dr. Münchmeyer of eight cases of advanced anæmia treated in Leopold's klinik, Dresden, by the subcutaneous injection of saline solutions. The solution was 0.6 per cent. of common salt, and the results were satisfactory. The anæmia was in nearly all the cases the result of post-partum hemorrhage.

In ten further cases of extreme debility after laparotomy and other serious operations, a similar injection was without effect, owing, as was believed, to paralysis of the cardiac muscle from brown atrophy. It is just possible that death was hastened in some of these cases by œdema of the lungs. All cases of anæmic debility are not suitable for the treatment, as the pulmonary circulation is readily overladen with fluid. In those cases of post-partum hemorrhage in which the injection was without result, it was probably because it was done too late. As the point for puncture, the infra-clavicular region was considered very suitable, it lay near the heart, and offered the best chances for rapid diffusion of the fluid. Strong stimulants should be given previously, and the injection supported by hot packings and wrapping up of the extremities in hot cloths. As used the solution was always sterilized. No more than a litre (thirty-five ounces) was ever injected; the range was always between half a litre and a litre. The apparatus used consisted of a funnel, an india-rubber tube one metre long, and several needles. The apparatus is readily kept disinfected. The needles can be sterilized in a flame, and a five per cent. solution of carbolic passed freely through the tube sterilizes that. The physiological fluid should of course be passed through before puncturing. The fluid injected is to be dispersed through the adjacent parts by massage, and if the lumps produced by the collections of fluid get too large, another and another spot may be chosen. The injection must be continued until a result is obtained. In the eight cases reported, success was achieved in, at the longest, three hours.

Dr. Pregaldioli recommends the subcutaneous injection of a solution of sea salt in acute anæmia. He claims that this increases blood pressure, and thereby stimulates the nerves. Acute anæmia causes death, not by want of oxygen, but by rapid sinking of the blood pressure, which causes sudden anæmia of the nerve centres. His experiments showed that the fluid injected into the cellular tissues (a six per cent. solution of sea salt) was rapidly absorbed, and that it had no deleterious influence on the regeneration of the blood corpuscles. The quantity of fluid required was from half to two-thirds of the quantity of blood withdrawn.—*Medical Press.*

TREATMENT OF SPRAINS.—It may be observed that a sprain is frequently treated with a liniment advised by physicians. It is indeed painful to see a physician writing a prescription for a sprain. There are but two indications in the treatment of sprains: 1. To provoke rapid absorption of the fluid effused around and within the joint; and 2. To favor cicatrization of the torn parts by immobilizing the articulation. Now, the modes of treatment hitherto in vogue do not fulfil these two indications. Massage would seem to present some real advantages, but it can be of little service in the case of severe sprains, and mild injuries would probably do as well under rest alone. An elastic bandage, the depressed parts being covered with a layer of cotton so as to prevent too great pressure over the prominence, and thereby causing sloughs, will meet the first indication, and by its use in procuring rest it will meet the second indication. This bandage acts like massage in promoting absorption and also secures immobility of the joint. It is of equal service in sprains complicated with rupture of points of insertion, whereas massage would be productive of harm in cases in which splinters of bone were torn away. The practice of relieving the mind of the patient by giving him something to do in the way of applying bad-smelling liniments is a pernicious one, and really shows an unprofessional or unscientific attendant.—*Canada Lancet.*

QUINSY.—In the early stages of quinsy, chloral hydrate is nearly a specific, three or four grains to the ounce of glycerine being used as a gargle. It is locally antiseptic, astringent, and sedative.—*Medical Record.*

OPERATIONS FOR GOITRE.

[*Med. and Surg. Reporter.*]

It is not many years since operations upon the enlarged thyroid gland were regarded with well-founded dread by almost all surgeons. The dangers of cutting operations for goitre were so great and the mortality so large that little was done for the relief of this disfiguring and distressing disorder beside injecting the tumor with iodine or occasionally some other so-called absorbent. This condition has been changed, largely through the persistent devotion of Kocher, of Bern, who has for some years steadily studied and practiced operations upon the thyroid gland. The result of this work is shown in a report on 250 operations published originally in the *Correspondenz-Blatt für Schweize Aertzte*, and summarized in the *Memorabilien*, September 13, 1889. The report covers five years and a half of Kocher's experience, and presents results worthy of the most careful attention.

In the first place—as Dr. Betz points out—it appears that in Kocher's hands the statistics of extirpation of the thyroid have become so favorable that its mortality is no longer a serious feature. In only six of Kocher's two hundred and fifty extirpations did death follow—that is, in only 2.4 per cent.; while in three of the fatal cases the disease was malignant, and one was a case of Graves' disease. If these cases be eliminated from the total, the mortality is reduced to *eight-tenths of one per cent.* Even this result appears in a more favorable light when one learns that, in one of the remaining fatal cases the patient was probably poisoned with ethylene, while the other patient was brought to the clinic almost moribund, in extreme dyspnœa.

In the main, Kocher adheres to the method associated with his name. The Winkel curved incision is preferred for difficult cases and when the thyroid is large; while for simpler tumors the oblique incision at the anterior border of the sterno-cleido-mastoid muscle, with a preference for the transverse incision, which does not give as good access to the field of operation, but from a cosmetic point of view is said to give the most beautiful results. The recurrent laryngeal nerve, and the principal trunk and the branches of the sympathetic, are most likely to be wounded. Tying the inferior thyroid artery must be done with the greatest care. In regard to later results of extirpation of the thyroid, it seems that what was once known as *cachexia strumipriva* might be more correctly called "*cachexia thyreopriva,*" and it seems important that in every extirpation of the thyroid gland some portion shall be left behind. Kocher, who is the best judge of such matters in the world, says that extirpation of the thyroid is indicated, first, in malignant disease if the disease is not diffuse, and also in cases in which there is a well-founded suspicion of malignancy; second, in inflamed thyroids which are free from cysts; third, in diffuse so-called hypertrophies. The contra-indication to extirpation is the absence of healthy gland substance upon the other side.

Enucleation is indicated, first, in cystic thyroids—that is to say, in cases in which cysts form the principal part of the tumor; second, where there are large isolated nodules imbedded in relatively sound glandular tissue; third, in immovable thyroids containing large nodules.

Scraping out (*évidement*) is indicated, first, where there are isolated nodules of soft consistence in relatively sound gland tissue; second, in cases such as those noted under the indications for enucleation, if there are nodules of soft consistence and with free and numerous vascular connections in the neighborhood.

Resection (partial excision) of the thyroid takes the place of extirpation and enucleation in the numerous cases which do not sharply correspond to the above indications. Ligation of the thyroid arteries should be performed in vascular thyroids, especially in Graves' disease.

Taken as a whole, we can heartily commend to the notice of our readers the views of Kocher on this important subject. No place in the world affords such full opportunities of studying it as he enjoys, and his wonderful success gives his opinions a weight which cannot attach to those of any operator less experienced and less successful.

A NEW DIAGNOTIC SIGN OF ABSCESS OF THE ANTRUM.—At the Congress of Otology and Laryngology, held at Paris last month, Dr. T. Heryng, of Warsaw, described a new diagnostic sign to which his attention was called by the late Professor Voltolini. The room being darkened, the patient's mouth is lit up by means of a small electric lamp placed above the tongue. Two spots of very bright red, of greater or less extent according to the size of the antrum, then become visible below the lower eyelids. If the cavity is filled with pus or occupied by a tumor, its front wall is no longer transparent, and the bright red spots are not seen. Dr. Heryng said he had noted the presence of this sign in ten cases which he had recently seen; he also observed that the wall became again transparent when the pus had escaped and the cavity was washed out.—*London Med. Recorder.*

NECROSIS OF THE ALVEOLAR PROCESSES FOLLOWING MEASLES.—Mr. R. Clement Lucas, (*Lancet*, Oct. 5, p. 692.) has lately recorded two cases in which exfoliation of the alveolar processes of the jaws appeared to follow an attack of measles. The first was that of a boy, aged 3, who five weeks before coming under observation had suffered from measles and inflammation of the lungs. After recovery, it was noticed that there was something wrong with his mouth. On examination it was found that on the front of both the upper and lower maxillæ, and limited to the anterior or central parts of both alveoli, there was a greenish-black piece of necrosed bone. The disease appeared confined to the alveolar process. The four incisor teeth had dropped out from the necrosed portion of the upper jaw; in the lower, the necrosis, besides involving all the incisor sockets, included those of the two canines. Mr. Lucas removed the necrosed portions with forceps. The piece taken away from the upper jaw was nearly quadrilateral, measuring three-quarters of an inch both vertically and transversely, and contained the sockets of the four incisor teeth. That removed from the lower jaw contained all the incisor sockets together with half the socket of the canine tooth of the right side and the whole socket of the corresponding tooth of the left side. The patient did well. The other case was that of a little girl of the same age. The main features were the same, but the destruction was even more extensive.—*London Med. Recorder.*

THE LANCET-CLINIC and *Obstetric Gazette* to one address one year for $5.

TREATMENT OF ACTINOMYCOSIS.

[*London Medical Recorder.*]

The prognosis of this disease is very difficult. Many cases have been reported in which there appears to have been complete recovery. Ponfick distinguishes between internal and external actinomycosis, and Curtze (*Deutsche medizinal Zeitung*, No. 52, 1889) agrees with him when he says that as long as the process is confined to the subcutaneous tissue the disease is but local, though there may be a very large tumor. Yet it has often occurred that a tumor has been erroneously considered local. Thus Majocchi reports a case in which a girl had merely a slightly conical swelling, resembling a boil, behind the right ear. Death ensued in six days with high fever. The post-mortem disclosed a process of actinomycosis through the whole body. Such an experience renders prognosis very doubtful. On the other hand, there have been reported recoveries from severe actinomycosis in the abdomen. Curtze, in answering the question, How best to attack this enemy? says, First find the clinico-medical means to prevent the spread of the disease in the body; then try to prevent the entrance of the fungus into the organs. The method in which the fungus spreads through the different parts of the body gives us indications how to watch its destructive course. Nearly exclusively by surgical operations is it possible to meet it. Actinomycosis of the lungs is difficult of treatment. As the disease-centre is generally deeply buried in the tissue, and can be diagnosed only long after its commencement, successful treatment can be only very rare. In some cases resection of a portion of the lung might be justifiable. Less hopeless is the treatment of abdominal actinomycosis, when the disease is apparent on the surface. Here the sharp spoon works wonders, and the skilful surgeon will find the knife and lunar caustic of great value, although the dreadful condition of the intestines and other organs might well cause the most practiced hand to drop the knife in despair.

There is no doubt that the disease has been acquired by human subjects from diseased beasts. Baracz, of Lemberg, alone maintains that it is transferable from man to man, if only in the way of kissing. In cattle the disease appears endemically, in fact only in particular pastures. It seems that cattle fed on oats grown on newly-ploughed land were attacked by the disease. It is at any rate certain that the fungus occurs freely on plants, and veterinary surgeons believe that infection takes place through the mouth being cut by the sharp fodder. Thus Piana saw a cow with little knots of actinomycetes in the tip of the tongue, along with panicles of oats and other grain. Soltmann proves that man can also be infected directly from plants, for the barbs of oats were found to be centres of the infection in the œsophagus. It is by no means probable that the eating of meat causes the infection, for as the fungus is at once destroyed by contact with water, it is not likely that it could leave the kitchen with any power to do mischief. Bollinger accuses milk of being the means of spreading the disease. The most important discovery is that of Israel and Partsch, who found nearly pure cultivations of the fungus in carious teeth. Thence it either enters the tissue of the jaw directly, or spreads through slight erosions of the mucous membrane or through the exposed pulpa of carious teeth. In this connection a case of Israel's is highly interesting, in which a fragment of tooth greater than a pea was found in a lung extensively attacked by actinomycosis. In abdominal actinomycosis it is certain that in many cases the germ of the disease is introduced with the food. It is doubtful, however, whether Zehmann is correct in asserting that the fungus can enter the uterus and tubes through the vagina. At any rate Bollinger maintains that the size of the actinomycetes is too large to pass the placentary septum.

It is not yet known in what form the fungus appears in the oat plant.

Under these circumstances but little can be said concerning prophylactic measures. It is very desirable to keep the teeth and mouth cavity scrupulously clean, and to be careful with regard to diet. Much more remains to be ascertained concerning the fungus.

HÆMATEMESIS is quickly relieved by water swallowed as hot as can be borne, in quantities of half a tumblerful at a time. No further hemorrhage occurs, and fragments of clots are vomited. — *Pittsburg Med. Review.*

PREPARATION OF SOLID CULTURE MEDIA FROM MILK.

[*London Medical Recorder.*]

Dr. Van Puteren, working in the laboratory of the Foundling Hospital at St. Petersburg, on the micro-organisms occurring in the alimentary canal of infants, was desirous of finding a solid culture medium, generally available and more quickly prepared than those he had hitherto employed. Drs. Tarchan-Mouravoff and Kolessnikoff had suggested the white of egg, and Miss Raskin, M. D., had prepared one from milk. In milk we have one of the very best culture fluids, but its opacity is an objection hitherto insuperable, for filtration through porous cylinders deprives it of some constituents, while the rennet employed by Heydenreich in his experiments in 1885 prevents the solidification of the gelatin.

By substituting a rennet essence free from pepsin Dr. Van Puteren at length succeeded in obtaining a perfectly transparent milk gelatin in less than two hours. His procedure is as follows: To one litre of skimmed milk in a tin saucepan of 1½ litre capacity he adds 5 or 6 cubic centimetres of rennet essence and warms it over a Bunsen burner to 40° or 42° C. When the temperature has reached 36° C. coagulation begins, the fluid becoming yellowish and transparent. After three to five minutes, the coagulum having shrunk, the liquid is passed through eight folds of (Marly) filtering paper. The filtrate is now reduced to 860 or 880 cubic centimetres and returned to the pan, the whites of two eggs and dry gelatin in the proportion of 6–10 per cent. being added. After the gelatin has been completely dissolved by stirring, the mixture is heated to boiling, when the egg albumen, previously slimy, coagulates, carrying with it a thick precipitate to the bottom. This takes place after four or five minutes. The contents of the vessel are again filtered as before, about 2 per cent. of sodic albuminate added, and then a weak solution of caustic potash to neutralization. The fluid is once more filtered through cotton-wool in a glass funnel, the cotton having been moistened with warm water (it should flow from the funnel in a small but continuous stream); and the loss from evaporation is made up by the addition of about 100 cubic centimetres of distilled water.

The filtrate sets firmly on cooling, remaining clear and suitable for most purposes; but, should perfect crystalline transparency be required, it is simply necessary to repeat the filtration in a vacuum chamber and finally through paper in a Plantamour's hot funnel.

A few practical points must be borne in mind to ensure success; thus, much time will be gained by constant stirring during the coagulation of the casein, and while the gelatin is being boiled its burning may be avoided in the same way. The egg albumen must not be added until the liquid has cooled, or it will coagulate before it has been uniformly diffused. The boiling must be suspended so soon as the egg albumen begins to form firm clots, but filtration must not be attempted so long as any remains in a glairy condition, in which it would choke the pores of the filter.

Another solid culture medium is prepared from milk, sodic albuminate, and agar-agar in like manner, except that the agar-agar is added in the proportion of one per cent. at the same time as the white of egg, and the mixture boiled for seven to ten minutes, by which time the agar-agar is completely dissolved, but the coagulation of the egg albumen demands a further four to five minutes' boiling. When the process is completed and the mixture has set, a cloudy precipitate will be seen at the bottom of the mass, which must be cut off and thrown away.

Tin vessels are preferable to glass, and a Bunsen argand of fifty jets to a single flame, since glass vessels requre a longer time; and too high a temperature, or one under 100° C. too long maintained, causes the milk sugar in the presence of the alkali to assume a brownish hue.

For a vacuum chamber Heydenreich has devised a simple and inexpensive apparatus, consisting of two bottles of a quarter of an eimer capacity [three to four gallons, according as the German or Swedish eimer is meant], one of which stands on the table or floor, and the other is suspended from the ceiling by a pulley. Each is fitted with an India-rubber cork, perforated by two glass tubes bent at right angles, the leg of one being quite short and that of the other reaching nearly to the bottom of the bottle. To each of the longer glass tubes is attached a piece of stout India-rubber tubing, in length equal to the height of the room; these are furnished with clamps and carried along the wall. The short tube of the lower vessel is left open, while that of the upper is connected by similar rubber tubing with the neck of the bottle in which the process of filtration is conducted. Both bottles having been filled with water, the air in the lower is withdrawn by aspiration through the shorter tube, and a syphon action is set up, exhausting the air in the filtering chamber or vessel. When the upper bottle becomes emptied of water it is let down by the pulley, the tubing connecting it with the filter chamber is detached and transferred to the short tube of the lower bottle, which is then hoisted to the ceiling, and the operation of changing the position of the bottles is repeated until the desired rarefaction of the air is obtained.

For further detailed directions for the arrangement and construction of the filters we must refer our readers to the German abstract in the *Centralblatt für Bacteriologie*, vol. v.

MERCURIAL INJECTION FOR SYPHILIS.—Dr. Hebra still pursues this course of treatment of syphilis at the Polyklinik, but admits that it is not so successful on out-door patients as those under our special care, as you have not the opportunity of modifying the dose to the individual wants.

He uses one injection daily of a 90 per cent. solution of sublimate with 6 per cent. of sodium chloride added. Of this solution one centigramme of the sublimate is injected, or 0.15432 of a grain. The injection is made in the nates, going deep into the gluteus, right and left on alternate days.

Twenty injections or three weeks is the usual time allowed for complete recovery. Infants and adults are treated on the same principle, with the dose modified according to age. Exceptions are here to be found also. He points to a case that is now attending the Klinik as an example of difficulty. The case has been under his notice for three years, and been 350 times injected. No effects of the drug can be obtained, unless severe sickness when pushed.

The danger of abscesses forming at the site of injection is small, as he has used it for five years and now says he never had a single untoward case, although he has treated 800 such cases, and at an average of 20 injections that would be 16,000 injections. The pain of injection may be raised against the treatment, but this seems to the patients a very trifle.

The advantages gained greatly more than counteract the disadvantages. The drug is immediately entered into the circulation, where the mercury seems to combine with the albumen and form a very stable compound, as it is long before it is thrown off from the kidneys. According to Bockhart's experiments it is three weeks before anything is seen after commencing the use of this chloro-soda-mercuric compound.

The influence of the drúg is observed to act rapidly and last longer than in any other form. As to the period of delay before any sequelæ appeared he was not in a fit state to give figures, as many of them would go to the nearest attendant for medical advice. — *Med. Press and Circular.*

Treatment of Ingrowing Toe-Nail. —Dr. Theodore Clemens, of Frankfort, strongly recommends the employment of tinfoil in the treatment of ingrowing toe-nail. He first has the toe thoroughly washed with soap and carefully dried. He then envelops the whole nail with tinfoil, putting a strip between the portion that grows in and the raw surface caused by it. The tinfoil is fixed by means of a very thin layer of common wax, and the patient told not to wash the part, but to use dry bran for rubbing off the dirt. Of course, the toe has to be repeatedly dressed with tinfoil: but, if the operation is carefully performed, it is surprising how long the tinfoil will remain intact, even when the patient is, as was usually the case in Dr. Clemens' hospital practice, very poor and very badly shod. The results are stated to have been most satisfactory, and are ascribed by Dr. Clemens, not merely to the mechanical action of the tinfoil, but to the effect of the permanent contact of a combination of metals comprising iron, copper, arsenic, molybdenum, wolfram, and bismuth, with a moist and growing portion of flesh. This, he says, brings about in a few weeks the complete healing of the sore, and causes the nail to grow more slowly and in a healthy manner.—*London Lancet.*

PTOMAINES.

[*British Medical Journal.*]

Among the recent advances in chemistry, none has been more full of interest to the pathologist than the strides made in our knowledge of the ptomaines and allied alkaloidal bodies. Numerous workers in this country and on the Continent are continually publishing fresh researches on the subject, and there is every indication that new and important discoveries may be expected in the future. The word ptomaine has, however, been used in different senses. Selmi applied it to those products of putrefaction which give the reactions of plant alkaloids, and have more or less of a poisonous action. Brieger, who was the first to obtain pure crystalline products from the syrupy extracts of previous investigators, found that the bases isolated from putrefactive mixtures are less poisonous than those produced by pathogenic bacteria; he therefore termed these latter poisons "toxines," restricting the term "ptomaines" to the alkaloidal products of ordinary putrefaction. The toxines include those powerful poisons which he has named "tetaine" and "typhotoxine."

Further investigation showed that the products of metabolism of the higher organisms were not, in general, different from those of bacteria, and that poisonous alkaloids occur during life in the most highly organized animals; choline and neurine had thus to be included among the ptomaines, and, later still, secondary toxic products of a simpler chemical constitution, such as methylamine, dimethylamine, etc., came under the same heading. The term "leucomaine," introduced by Gautier, is now very generally applied to the class of poisonous bases which is produced in the tissues of living animals by metabolic processes.

An important class of ptomaines are those which are termed "diamines," according to their chemical constitution. They are probably formed by oxidative processes from the monamines, and are found in small quantities in substances which have undergone very prolonged ordinary putrefactive decomposition; but what lends especial interest and importance to them from the pathologist's point of view is the fact that in cultivations of the cholera bacillus and of the Finkler-Prior vibrio they are readily formed in large quantities. It is exceedingly probable that in these substances Brieger is on the track of the true poison produced by bacterial energy in cholera. He has at present particularly studied two diamines, to which he has given the names "putrescine" and "cadaverine." Putrescine, to give it its chemical name, is tetramethylene-diamine ($C_4H_{12}N_2$), while cadaverine is pentamethylene-diamine ($C_5H_{14}N_2$). This latter substance has a strong and characteristic odor; it is, in fact, the odor of cholera stools. When the diamines are injected into the circulation they produce symptoms (hemorrhages and ulcerations) similar to those that occur in cholera; the muscular cramps and other prominent symptoms of that disease are doubtless produced by other toxines which have not yet been separated.

The investigation of diamines has been by no means exclusively carried on by Brieger, and among others the researches of von Udránszky and Baumann demand special attention. They have recently published their results in a highly interesting and suggestive article in Hoppe-Seyler's *Zeitschrift für physiologische Chemie* (vol. xiii, p. 572).

In a case of cystinuria which was under their observation for more than a year after the removal of the calculus, the patient continued to void cystin crystals throughout the whole period. But the remarkable feature of the case was that during this time also the urine contained abundance of diamines; both cadaverine and putrescine were separated by chemical methods in a crystalline form, and the penta-compound (cadaverine) was always the more abundant.

Dupré and Bence Jones were the first to separate an alkaloidal substance from urine. Since then the question has been often discussed whether the ptomaines formed by putrefaction in the alimentary canal are partly reabsorbed and excreted in the urine. Leaving out of account creatinine, there has been, however, up till now, no satisfactory evidence that poisonous alkaloids occur in normal or pathological urine. In spite of this failure to isolate such toxic agents from the urine, many authors have not hesitated to assume that they occur, but have hitherto eluded detection. This assumption is, however, no longer necessary, for in a masterly research Stadthagen (*Zeit. klin. Med.*, xv, Parts 5 and 6) has settted the question by showing that the poisonous substances in urine are inorganic potassium salts.

Diamines, certainly, are absent in normal urine; they are also absent in cases of acute and chronic cystitis, and in the urine of patients suffering from scarlatina, diphtheria, typhoid, pneumonic phthisis, and other suppurative processes. The urine and the blood of dogs and other lower animals are also free from diamines.

The case of cystinuria recorded by von Udránszky and Baumann does not stand alone, for in two other cases Stadthagen and Brieger (*Archiv path. Anat.*, cxv, Part 3) have found diamines in the urine.

Cholera and cystinuria have thus one circumstance in common, the formation of of diamines, and in both diseases von Udránszky and Baumann consider there is but little doubt that they are formed by the agency of microbes. The feces of their patient were examined, and though cystin was absent, about half a gramme *per diem* of the two diamines was obtained; here, however, the tetra-compound (putrescine) was by far the more abundant; that is the opposite to what was found in the urine. This result, however, was not wholly unexpected, and is certainly a strong confirmation of the view that the poisons are produced by bacterial agency; for Brieger showed that when diamines are produced, first pentamethylene-diamine, and in the later stages of decomposition tetramethylene-diamine are formed. The penta-compound is here no doubt produced in the small intestine, absorbed in great measure, and then excreted in the urine; the tetra-compound is not formed until the large intestine is reached, and so is found in greater abundance in the feces.

Diamines are absent in normal feces, and in the stools of patients suffering from intestinal obstruction, typhoid fever, tuberculous ulceration of the intestines, and a large number of other diseases. Brieger and Stadthagen found them, however, in their two cases of cystinuria. So that, both with regard to urine and feces, the three cases are identical.

The question will, however, inevitably arise, How is it that these diamines give no characteristic odor to the intestinal contents, and produce no local action on the the intestinal wall? This difficulty von

Udránsky and Baumann do not at present feel able to answer fully; more information is still wanting as to the quantity of diamines present in cholera, and researches on the effect of feeding animals on diamines are in progress. It is, however, probable that the bases are more greatly diluted by the urine and feces in cystinuria than in cholera, and also that the bases are not present in the free condition but in combination. This latter view of the case is supported by the fact that both urine and feces have an acid reaction.

Estimation of the amount of ethereal hydrogen sulphates in the urine of the same patient showed that their amount and relation to total sulphates were approximately normal. The amount of the ethereal sulphates in the urine is the best criterion we possess of the amount of putrefactive change occurring in the body. Thus, though there are no direct bacteriological observations, the conclusions which von Udránszky and Baumann draw from purely chemical experiment appear incontrovertible. These conclusions are, first, that the diamines are produced by bacteria, and, secondly, that the bacteria which produce the diamines are not those which cause the usual putrefactive changes in the alimentary canal.

Certain other deductions, however, made by these two observers we are not at present prepared to accept so fully. They say that if the formation of diamines in the alimentary canal of patients suffering from cystinuria is found to be constant it may ultimately turn out that cystinuria or diaminuria is like cholera, though to a less degree, an infectious disease. Although this suggestion is full of interest and likely to stimulate further investigations, it must, we think, be patent to all that the evidence in its favor is as yet inconclusive, and the verdict must remain for the present "not proven."

NUX VOMICA IN CARDIAC FAILURE.—Dr. A. Bowie reports two cases of cardiac failure in which death seemed imminent, that were speedily relieved by small doses of the tincture of nux vomica every half hour for four doses, then every hour. He considers it the most valuable remedy that we have.—*London Lancet.*

The Acutely Ill.

When a patient is acutely ill, the digestive powers share in the general condition, and consequently the food supplied should be of the most easily assimilable character. The predigestion of starchy matters outside the body, as in MELLIN'S FOOD, is necessary, and the soluble carbohydrates of which this food consists, soluble because predigested, form the true food of the acutely ill.—J. MILNER FOTHERGILL, M.D., Edin.

A sample of MELLIN'S FOOD *will be sent to any physician, free of expense, upon application.*

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CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, November 16, 1889. *WHOLE VOLUME LXII.*

Original Articles.

CLINICAL SIGNIFICANCE OF THE TENDON REFLEXES.

A Paper read before the Cincinnati Medical Society, October 22, 1889,

By PHILIP ZENNER, A.M., M.D.,
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The tendon reflexes are the sudden contractions of muscles elicited by sharp blows upon their tendons. It is very doubtful whether they are true spinal reflexes, the opinion now most generally held being that the contraction of the muscle is due to its direct irritation. But, nevertheless, the integrity of the reflex arc (this includes the muscle, its afferent and efferent nerve, and the segment of the spinal cord with which it is related) is necessary for the production of the tendon reaction. This is the important fact, clinically, for as there is anything abnormal in the tendon reaction, so is there something abnormal in some part of the reflex arc.

In normal subjects only a few tendon reflexes are commonly found, that of the patellar tendon, of the Achilles tendon, and of the tendon of the triceps muscle, the one by all means the most common being the patellar tendon reflex. In addition to these tendon reflexes, a few others called "deep reflexes" are sometime found in healthy subjects. Thus tappings on the lower end of the radius causes contraction of the biceps. These deep reflexes are, probably, of the same nature as the tendon reflexes, and, though not found to any extent in healthy subjects, are greatly multiplied in those cases of disease where the tendon reflexes are much exaggerated.

These phenomena are of significance in disease to the extent that they then appear differently from what they do in normal subjects. These differences are their entire absence, where they are present normally, and their pathological excess. The patellar tendon reflex can almost invariably be elicited in health; its absence is therefore of deep significance. The tendon reflexes vary much in the extent of their manifestation in different healthy individuals—scarcely perceptible in some, seemingly excessive in others. They even vary in the same individual at different times. For these reasons it becomes difficult to define what is pathological excess. But one phenomenon, which will be described further on, may be accepted as a proof of pathological excess, as it is almost never present in healthy individuals, and that is that form of excessive Achilles tendon reaction usually termed ankle clonus.

It is these two phenomena, the patellar tendon reflex and the ankle clonus, which are of importance to us as diagnosticians and practitioners. The absence of the first, the presence of the second, belong to the most pathognomonic signs of disease. It is only with these phenomena that we will be concerned in this paper.

PATELLAR TENDON REFLEX.

The patellar tendon reflex, knee phenomenon or knee jerk, as it has been variously termed, is the sudden contraction of the quadriceps femoris muscle, and consequent forward jerk of the foot when a sharp blow is struck upon the ligamentum patellæ. This phenomenon varies much in degree in different healthy individuals, from a state of apparent excess to one where it is almost imperceptible. Therefore, as its complete absence is so significant, it is important to fully understand the methods of eliciting it, lest it be pronounced absent when merely difficult to elicit.

The ordinary method of eliciting it is to have the patient cross one knee over the other and then strike the patellar tendon with the tips of the fingers, the inner border of the hand, or a percussion hammer. This usually suffices, but in difficult cases it is well to have the patient sit on a table with the legs dangling and the knees entirely bare, and strike the tendon in every part. We must see that the limb is not tightly compressed by the clothing, and that there is no voluntary contraction of the muscles of the knee, that is, the leg must be enabled to swing freely. The tendon must be struck on every part, if the phenomenon is not otherwise obtained, because a blow at one point, inner or outer margin of the tendon or elsewhere, will sometimes produce the reaction, when it will not do so struck upon any other part.

If we have not yet succeeded in eliciting the phenomenon we must try Jendrassik's method. The patient is told to clinch his hands and then pull them forcibly, and while his muscles are thus vigorously in action the examiner strikes the ligamentum patellæ. This method increases the phenomenon very much. If no response can be obtained with its aid the patellar tendon reflex may be pronounced to be absent.

When the patient is confined to his bed the knee may be held at an obtuse angle by the hand of the examiner, and then the blow delivered on the ligamentum patellæ. It is often a good plan in doubtful cases to place the hand on the quadriceps muscle, for its contraction may be felt when no distinct movement of the foot is observed.

I lay special stress on the methods of examination, because I have very frequently had cases pointed out to me by other physicians as instances of absent knee jerk when a proper examination very easily elicited it.

The fact that this phenomenon is almost always present in health and that its absence is a sign of disease is easily demonstrated by a few figures. Pelizaeus examined 2,403 school children, and, though the phenomenon was difficult to elicit in some, succeeded in obtaining it in every one of them. Jendrassik examined 1,000 persons, chiefly adults, some healthy, others not, but with no manifest disease of the nervous system, and only failed to elicit the phenomenon in a single individual, that being a case of diabetes mellitus. In a paper read before the American Medical Association in 1886 I made a report of the examination of 2,846 adults, of whom 1,174 were insane. Of the latter I shall speak again. Of 1,672 sane persons the knee phenomenon was found absent in five. Of these, two were cases of locomotor ataxia, one was an old man of ninety-four years, and two were in apparent health.

Such figures suggest the question, Is the absence of the knee phenomenon always a sign of disease? Our experience hitherto does not warrant an answer in the affirmative. It seems that, in very rare instances, the phenomenon is absent in altogether healthy individuals; though cases of this kind should be kept under observation to watch whether other symptoms of disease will become manifest. But when other, even slight, symptoms are present, the absence of the knee phenomenon has an almost pathognomic significance.

The patellar tendon reflex is absent when there is disease involving any part of its reflex arc, the muscle, its afferent or efferent nerves, or the appropriate segment of the spinal cord. This includes disease of the anterior crural nerve and its anterior and posterior roots, neuritis, tumor, injury or the like, and such disease of the lumbar region of the cord as destroys nerve cells and fibres related to the quadriceps femoris muscle.

In recent years the phenomenon has been often found absent in cases of diabetes mellitus, chronic alcoholism, and diphtheritic paralysis, and is probably due to a degree of neuritis existing in these cases. The same cause probably accounts for its absence in some cases of paralysis from arsenic and other toxic agents.

In these instances the absence of the knee jerk is an interesting clinical feature, but is not of much importance to the practitioner. But it is quite different as regards the diseases of the spinal cord. The diseases of the cord in which this phenomenon is generally absent are anterior poliomyelitis and locomotor ataxia.

It is always absent in anterior poliomyelitis when it affects the lumbar region to any extent. This sign is especially valuable in the diagnosis of the early stages of the essential paralysis of young children, for in such cases the quadriceps femoris muscle, on one or both sides, is frequently affected. It is often difficult to determine why an infant does not move its limbs, whether it is due to pain or loss of power.

When the paralysis has been present for some time, the atrophy of the limbs and altered electrical reactions plainly reveal the true condition; but the loss of the patellar tendon reflex may do so almost at the beginning of the disease. On the other hand, the presence of this phenomenon may help to exclude the disease.

But the disease for whose diagnosis the absence of the knee jerk is especially important is locomotor ataxia. This symptom is so valuable here because it is almost always present, and usually an early symptom, often the first symptom. So almost universally is this symptom found in locomotor ataxia that the disease may often be excluded if the knee phenomenon is normally present. This possibility of excluding a grave disease is often of great consequence in practice. Let me give a few illustrations. I have under treatment at present a number of cases in which flying neuralgic pains are the prominent symptoms, and which have been present many months. Such pains are often the earliest noticeable symptoms of locomotor ataxia; but in these instances the knee jerk is present, and I have therefore not hesitated to pronounce that the pains are due to functional disease, and that the patients would entirely recover. Such assurance alone is of great value in promoting a cure, and there is the further consideration of the great mental relief to the patient. It is true there is a possibility of error, but it is a source of comfort that we have in this symptom an ordinarily safe guide in diagnosis. As to the cases just referred to, their progress so far has justified the diagnosis given.

Let me attempt to make this point more forcible by another illustration. A few weeks ago a patient came to me for examination, a man living in a distant part of the State, in whom a number of physicians had made the diagnosis of locomotor ataxia. The diagnosis was based upon an ataxic gait and some paresis of the lower extremities. The patellar tendon reflex was normal on both sides. The other cardinal symptoms of locomotor ataxia were absent. The history of the patient revealed the fact that he had been a hard drinker prior to the development of the present malady. I made a diagnosis of alcoholic neuritis, and gave a favorable prognosis. I do not doubt that time will prove the correctness of this view, which was based mainly on the condition of the patellar tendon reflex.

I might add the histories of numerous cases, some of much interest, sent to me by physicians as cases of locomotor ataxia, where I was enabled, chiefly by the condition of the knee phenomenon, to exclude this disease, to the no small relief of the sufferers.

I do not wish to promulgate the idea that the knee phenomenon is always absent in locomotor ataxia, for it is sometimes present, especially in the early stages of the disease. But, nevertheless, its presence is so rare, at least without some modifications which may be considered pathological, that when the phenomenon is found normally present this disease may be safely excluded unless other strong evidence is manifested in its favor.

So much as to the value of the knee phenomenon in excluding locomotor ataxia. On the other hand, the absence of the phenomenon is often conclusive evidence of the presence of this disease; in fact, it may enable us to make a positive diagnosis of locomotor ataxia, when, before finding this symptom, the disease had not been thought of.

If this symptom is alone present one would scarcely venture to diagnose disease of the cord, for it is sometimes found in apparently healthy individuals; but if other symptoms of the cord are found, such a diagnosis should be made.

Other early symptoms of locomotor ataxia are shooting pains and certain ocular symptoms, transitory or permanent paralysis of extrinsic muscles of the eyes, atrophy of the optic nerves, and spinal myosis—that is, very small pupils which do not respond to light, but become narrower in the act of accommodation. If any of these symptoms are present and the knee phenomena are missing, locomotor ataxia should be diagnosed. I have in a number of instances made the diagnosis when only two such symptoms were found, and have seen other symptoms of the disease become manifest at a later period.

I wish, next, to call attention to the importance of the absence of the patellar tendon reflex in the diagnosis of one of the forms of insanity, general paralysis of the insane. In many cases of this disease there is sclerosis of the posterior columns, without its striking symptoms being manifest, but in which the absence of the knee jerk and spinal myosis can be found when sought for. Of the 1,174 insane patients reported in my paper, to which I shortly referred, in twenty-three the knee jerk was absent. Of these, twelve were cases of general paralysis. The significance of this will appear greater when it is remembered that there were few other cases of general paralysis in the number examined. Of these twelve cases of general paralysis with absent knee pnenomena, pupil symptoms were found in ten, while of the other eleven insane with absent knee jerk, pupil symptoms were found in but two. We may conclude from these observations, which are, furthermore, corroborated by those of other physicians, that when an insane patient has absent knee phenomena, and spinal myosis, there is a strong probability that he suffers with general paralysis.

Very recently these symptoms were serviceable to me in diagnosis. I was called in consultation to see a patient where the time did not permit a careful analysis of the mental symptoms, but the presence of these symptoms led me to diagnose general paralysis. The patient had been long under medical treatment without the recognition of this condition, which a subsequent more careful examination, as well as the development of other symptoms, proved to be present.

I have, so far, spoken of the significance of the absence of the patellar tendon reflex; but we must also consider another question, Does a very slight response have any clinical significance? Generally such a response has no significance, for it is found in many healthy individuals. The variability of the response is dependent largely on the degree of tension of the tendon, the response being slight when the tension is lax. In some individuals a layer of fat under the tendon seems to interfere with the reaction. It is often difficult to obtain the knee jerk in infants and young children. But under some circumstances a diminished response must be looked upon with suspicion, if not considered a positive sign of disease. This is true when the knee jerk, at one time normal or even excessive, is observed to gradually lessen in degree, or when it is much less on one side than the other, and especially when it is altogether absent on one side. Such manifestations must make us suspect disease of the cord.

ANKLE CLONUS.

We have so far considered the significance of absent tendon reflexes; we must now consider the significance of these phenomena when they are excessive. We shall consider only that form of these manifestations which has the greatest clinical significance, the ankle clonus.

The ankle clonus consists of a series of rhythmical up-and-down movements of the foot, at the rate of six to ten per second, produced by its sudden dorsal flexion. To elicit it the foot is grasped firmly with one hand, while the other may support the lifted leg, and then the foot is flexed suddenly and forcibly, and held in the flexed position. The movements of the foot are caused by the contractions and relaxations of the muscles of the calf. The clonus is a series of Achilles tendon reflexed. The sudden flexing of the foot stretches the tendon and produces a contraction of the calf muscles, just as a sudden blow on the tendon would cause it; and the series of contractions is caused by a succession of the same causes. The movements continue as long as the foot is held in its flexed position.

The ankle clonus is very rarely met in healthy individuals. Berger examined 1,400 soldiers and succeeded in eliciting it only three times. Like the absence of the patellar tendon reflex, it acquires its significance in disease on account of its rare appearance in health.

The ankle clonus is found mainly in those cases where there is disease of the pyramidal tracts of the cord, in various forms of myelitis, in lateral sclerosis, and in degeneration of the pyramidal tracts secondary to cerebral lesions. But it is not found if there be, at the same time, sclerosis of the posterior columns, or extensive disease of the anterior grey matter in the lumbar portion of the cord.

It is a question to what extent the ankle clonus will assist in differentiating between organic disease of the cord and some cases of hysteria, where loss of power, rigidity of limbs, and excessive tendon reflexes seem to indicate organic disease. Usually the presence of a decided ankle clonus may be accepted as proof of organic disease. While there may be excessive tendon reflexes in hysteria, we seldom, if ever, find the ankle clonus. There may be found a spurious ankle clonus; that is, a few clonic contractions of the calf muscles are obtained when an attempt is made to elicit the ankle clonus, but not the unbroken series of movements of the foot as long as the effort is kept up, as is true of the genuine clonus.

The tendon reflexes are often very pronounced in nervous persons; they are excessive in some cases of ordinary neurasthenia, in hysteria, — in fact, wherever there appears to be excessive irritability of the nervous system,—in chronic diseases, in convalescence from severe diseases, etc.; but in none of these instances does the excess usually reach to the development of the ankle clonus.

In addition to their significance in diagnosis, excessive tendon reflexes often have great value in prognosis, in assisting us to determine whether a hemiplegia of cerebral origin will be permanent. The earlier and more pronounced these manifestations are, the more unfavorable the prognosis.

PHYSICAL EDUCATION IN CHILDREN.—Dr. A. H. Leuf (*Archiv. Pediatrics*) says:

1. The object is to develop the material body, and with it, of necessity, the mind and morals.
2. Like most potent agencies, it is much abused and far too little understood.
3. It absolutely forbids smoking.
4. It absolutely forbids the drinking of alcoholic or malt beverages.
5. It insists upon the necessity of regularity in living, especially as regards the time of sleeping, eating, exercise, and recreation.
6. It enforces a good substantial dietary that will never be forgotten.
7. It discountenances all kinds of vice.
8. It is rigid in discipline without seeming so to those disciplined, and develops implicit and willing obedience to advisors.
9. It has a marked effect upon the growth of the body and mind.
10. It develops to a high degree the valuable qualities of hope, confidence, courage, deference, obedience where proper, independence, perseverance, ambition, temperance, and determination.
11. It is, in short, the most valuable preparation of the young for the cares and trials of adult life, and aids young and old alike to ward off disease and mitigate its effects.

Society Reports.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

OFFICIAL REPORT.

Stated Meeting, October 9, 1889.

The Vice-President, JOHN B. ROBERTS, M.D., in the Chair.

DR. L. WOLFF presented a paper entitled

The Chemistry of Gastric Digestion.

Ever since the days of the Iatrochemists, when Boerhave declared that the gastric digestion was analogous to the fermentative process, in which the chemical constituents of the food acted on each other and rendered it soluble, various theories were advanced to account for the digestive process. The secretion of the gastric mucous membrane was demonstrated by Réaumur, and also its solvent action on food, in which he was supported by Spallanzani, who, with the former, opposed the purely mechanical theory. Both of these investigators (1752) already obtained the gastric secretion from the stomach, and with it proved its digestive action outside of the body. The acidity of the gastric secretion was made known by Spallanzani in 1783, and he claimed for it that it was a solvent for foods both within and outside of the body, and that it preserved food not already decomposed from decomposition at ordinary temperature. Carminati, in 1785, showed the difference in reaction of the gastric juice, which was acid during digestion but not so while fasting. The acidity of the gastric secretions was confirmed variously, but held to be due to fermentation of the food rather than to the reaction of the secreted gastric juice. Prout, in 1824, proved that the gastric secretion was acid, and that the acid was not organic but hydrochloric acid, which was confirmed by Tiedemann and Gmelin, and by them it was also stated that after ingestion of food it is acid, but in the empty stomach neutral. Up to 1830 nothing was known of the secretory apparatus of the stomach. Bischoff then recognized the difference of the glands of the pyloric region from those of the non-pyloric. This was soon confirmed by others, but up to 1834 no positive knowledge of the gastric digestion was had, until Beaumont published his observations in the celebrated case of St. Martin. Bidder and Schmidt soon followed with similar observations, and by the aid of gastric fistulæ in animals confirmed the former. Eberle demonstrated that neither the acid nor the mucoid secretion alone could produce digestive action, and Schwann's investigations resulted in the recognition and separation of the digestive principle "pepsin." Mialhe termed the results of proteid digestion "albuminose," while to Lehmann and Meissner is due the better knowledge we have of the character and formation of the "peptones."

When, in presenting this paper, I have taken the liberty to introduce the subject by a cursory review of the history of our knowledge of the gastric digestion, and with it the recognition of its purely chemical character, my object was to demonstrate how the great advances made in this direction within recent times were made possible only by the manner in which the road had already been paved by earlier investigators.

The gastric secretion which causes the chemical change of protein bodies into peptone has been closely studied by C. Schmidt, who determined the total chlorine therein, together with all the bases, such as potassium, sodium, calcium, magnesia, ammonium and iron, and after accounting for the saturation of these had a residue of free hydrochloric acid left which amounted to about 2.5 to 4 grammes in one litre of the secretion. Although the pure hydrochloric acid has no peptonizing action, it alone can make pepsin display such a function, while, again, neutral pepsin has no digestive power unless coupled with this acid. While it is thus evident that the hydrochloric acid plays an important part in gastric digestion, it has an equally valuable property by acting as an antiseptic and germicide over the ingesta when present in a free state. Miguel ascertained that 0.2 to 0.3 grammes of a mineral acid sufficed to preserve 100 c.c. meat broth from sepsis, after Seibert had shown that 0.5 per cent. HCl prevented chopped meat effectually from decay. As had been proven in Hoppe Seyler's laboratory that there existed in the normal gastric secretion 0.3 per cent. HCl, it would readily appear how the normal amount of HCl in the gastric juice will prevent the development of sepsis in the food bolus, while the presence of less than the normal amount will permit some ferment action, and the total absence will result in fermentation with production of organic acids, which will not only serve to retard the digestive power of pepsin, but will also prevent it.

The question of the production of such a strong mineral acid by the alkaline tissues of the stomach and from the alkaline blood can be only explained by the presence of chlorides in the blood, and the decomposition thereof in the secretory apparatus, with the elective osmosis of the ovoid cells which separate the acid to the interior of the gland while it sends back more alkaline blood to the circulation. It is a fact, well established, that weaker acids may replace stronger ones, and it appears a fair deduction that the alkaline hydrocarbonates of the blood become, under the influence of the secreting cell, neutral carbonates, by displacing from the chlorides the chlorine, which unites with the hydrogen so liberated to form hydrochloric acid. As to the intimate function of the secretory apparatus in the production of HCl, little is known, though it seems proven to a certainty by Heidenhain that the ovoid cells of the tubules of the peptic glands secrete the acid, for on the tubules of the pyloric glands no ovoid cells are found, and no HCl is secreted by them, although the secretion of pepsin by them is readily proven by the digestive test with addition of hydrochloric acid.

That normal gastric juice prevents and corrects septic changes of albuminoid food is well established; that the admixture of pepsin to it takes no part therein has also been found to be true by Cohn (*Zeitschrift für physiologische Chemie*, xiv, 1, July 29, 1889). He also finds that "even small quantities of HCl prevent the formation of acetic acid, and that lactic fermentation is prevented by as much HCl as is necessary to convert into chlorides the phosphates required for the propagation of the bacillus acidi lactici. Further, that pepsin-hydrochloric acid has the same value to prevent fermentation as that without pepsin, and that HCl united with peptones fails to inhibit or prevent fermentation, and, as is already known, digests albuminoid food." He also confirms Ewald's observations that "HCl is probably secreted at once with the ingestion of food, but is imbibed by and united with the albuminoids, also with the bases or salts it unites with or displaces, and that during this period there is nothing to prevent fermentations." It is a well-known fact that during the early part of the digestive process lactic acid always appears, and the latter sentence explains this sufficiently, and also the reason why lactic acid was so long thought to play an important part in the digestive process.

The importance of the presence of hydrochloric acid in the stomach during digestion is obvious from the above, and the fact that in none of the investigations made so far with abnormal gastric secretions has pepsin been absent, but that the normal quantity of the acid was always found deficient or totally wanting, shows certainly the uselessness of medication with pepsin, and certainly the necessity of a knowledge of the acid secretion, in so far if increased, normal, diminished, or absent, both for diagnostic as well as therapeutic purposes. Thus has the study of the acidity and the quantitative presence of HCl become of paramount importance in the consideration of gastric diseases. To this end the *modus operandi* of obtaining the specimen of the secretion is to be considered first. This has to be done at a time when its digestive power is the greatest, and when the presence of the ingesta shall not render the withdrawal impossible. It has been found that at the end of the normal digestive act HCl was alone present, the lactic acid which forms during its early stage having disappeared. This is accomplished by giving an early meal known as "trial breakfast," consisting of a few pieces of bread or bun, altogether about two or three ounces, and a glass of water or cup of tea. A soft-boiled egg has been used by some instead, as it was found that it disappeared in about one hour and a half. As under abnormal conditions this period may be much protracted, the undigested portions of the egg may readily clog the fenestra of the tube; beside, the now proven union of the albuminoids with HCl renders these experiments inaccurate. To take the specimen about four or five hours after a "trial dinner" has no advantages over the former.

The expression of the juice through the tube by epigastric pressure is both a painful and brutal method, and the extraction by a suction apparatus is much to be preferred. Germain Sée uses a Potain aspirator for the purpose having made only a partial exhaust, but an ordinary syringe has answered in my hands quite as well, especially as only a few drachms are needed for the chemical examination. The tube employed is an ordinary small size stomach tube with two fenestræ, and in the cases of infants I have frequently used a small soft-rubber catheter. When the tube is introduced the fluid is withdrawn by slowly moving out the piston of the syringe. At the junction of the stomach tube and the tube connecting it with the syringe a small piece of glass tubing is introduced, by which successful suction and a sufficiency can be recognized. The specimen obtained is next filtered, its appearance marked, and its general reaction ascertained either by litmus paper or, as will be shown hereafter, by Congo paper. After acidity has thus been found, the quantity is determined by acidimetry with a decinormal solution of sodium hydrate, phenolphthalein or preferably litmus being used as indicator. To this end five cubic centimetres of the gastric juice are used, and the total acidity is expressed by multiplying the result with twenty, which then gives the number of cubic centimetres of one-tenth normal soda solution necessary to neutralize one hundred cubic centimetres of gastric juice. The total acidity ascertained, it becomes necessary to ascertain the chemical character of the acid.

To determine if lactic acid is present, the phenol-ferric chloride test of Uffelmann is applied. This consists of a two per cent. solution of carbolic acid to which a few drops of a solution of neutral ferric chloride is added, sufficient to give it a steel-blue color. If to the filtered gastric juice some of this test is added, it will be entirely decolorized if hydrochloric acid alone is present; if lactic and hydrochloric acids together, the color will be changed to a yellowish tint; and if lactic acid is in excess a reddish-yellow shade will appear, whereas in the absence of hydrochloric acid it will assume a more greenish tint. This can be considered, however, a test for lactic acid only, and will not serve for the detection of HCl. To detect the presence of the latter, Laborde proposed the use of methyl-violet; a weak, watery solution of this is changed by HCl to a greenish-blue color, but does not respond to lactic nor the fatty acids. Though it answers the purpose well with gastric juice of no great deficiency in HCl, the color-changes with weak acidulous fluids are not always distinct enough to judge of very small amounts of HCl. The manner of testing consists of placing into a small glass dish or watch crystal resting on a white background a small quantity of the filtered gastric juice and allowing a few drops of the test solution to run down the side of the vessel and commingle with the specimen, when a change from violet to blue will become apparent if HCl is present. Another reagent, even superior in delicacy, is a saturated aqueous solution of tropeolin, No. 4. This is orange-yellow, and if applied in the same manner as described for methyl-violet, will change to a beautiful red or brownish-red with HCl, and is only somewhat darkened by lactic acid and very little changed in color by the fatty acids. I have determined its limit to detect HCl in water to be 1 to 3500, while 1 to 500 is the greatest dilution of lactic acid that will affect its color, and a 1 to 100 solution of acetic acid also fails to bring about a change of tint.

Another reagent, introduced by Günzburg not very long ago, is the phloroglucin-vanillin. It does not indicate organic acids, but is a very delicate reagent for HCl. Wiesner found that if a pine stick was dipped into a phloroglucin solution and was then touched with strong HCl it turned a dark-red color. This is due to the presence of vanillin in pine wood, and for that reason the former was substituted for it. The reagent is composed as follows: Two grammes phloroglucin ($C_6H_3(OH)_3$) and one gramme vanillin are dissolved in thirty grammes absolute alcohol. This yellow solution gives at once with a stronger mineral acid a dark-red color with deposition of red crystals. To apply it to weaker acid solutions, such as the gastric juice, the fluid must be evaporated at a temperature below the boiling-point of water until the HCl is left sufficiently strong to give the reaction. The manner of applying it consists of mixing an equal number of drops (two to three) of the filtered specimen and the reagent on a watch crystal and evaporating the same to dryness. If HCl is present the dry residue assumes a red color, or if the acid is present in minute quantities it may show distinct red outlines only. This test is no doubt very delicate and valuable, and I have found it to indicate as little as 1 part HCl in 10,000 parts of water.

The fourth of the more important reagents for hydrochloric acid in the gastric secretions is the Congo paper as proposed by Prof. Riegel. It is by far the most delicate reagent and easy of application. By HCl it is turned to a bright greenish-blue color, but is also affected by lactic acid, which changes it to a darker and dirty blue; acetic acid will darken it with a bluish tinge. With this reagent as obtained from Merck, in Darmstadt, I was able to detect as little as 1 part HCl to 20,000 parts of water; and while 1 part of acetic acid in 3000 parts of water gave a slight change in color with traces of blue, 1 part of lactic acid in 5000 parts of water gave a faint indication, but failed to do so with 1 to 6000. It is seen thus that Congo paper is not only the most delicate reagent we have for HCl, but is also a general indicator of acidity, and when it fails to show the latter, total anacidity may fairly be claimed. When acidity has been established by it, the application of the other reagents becomes necessary to ascertain the character of the acids present.

Various other color reagents have been recommended for the purpose of detecting HCl in gastric juice, but with those above enumerated all that is necessary can be established, save the one important point —the quantitative determination of HCl in the gastric secretions. This has been done by chemists in various manners, and very satisfactorily; but neither of the methods so employed are suitable for clinical investigations or simple enough to be used by the clinician who has not more than ordinary skill in chemical manipulations, even were not the time consumed in the chemical analysis a factor which debarred it from clinical application.

Already Bidder and Schmidt determined the amount of free HCl in the gastric secretions by determining the total chlorine therein and the total bases, and from computation of the amount that the latter could take up arrived at the residuary Cl present as HCl. Though perhaps more accurate than any other method, it requires so much time, apparatus, and chemical skill to be quite out of the question for the physician's daily use.

The method of Rabuteau as modified by Cahn and v. Mehring is even more laborious. It consists in evaporating a certain quantity of gastric juice to one-fifth, shaking out the lactic acid repeatedly with ether, uniting the residuary HCl with cinchonine and dissolving out the cinchonine hydrochloride with chloroform, from which, after evaporation, the HCl is determined by titration.

Another method by Cahn and v. Mehring consists in the distilling of the volatile fatty acids, which are determined by titration. The residuary lactic acid is shaken out with ether and also titrated, and also from the residue thereof the HCl.

The method of Seemann, as originated by Von Hehner, though simpler than the above, is not chemically accurate, but will certainly answer for clinical purposes. It consists in saturating a certain amount of gastric juice with one-tenth normal sodium hydrate solution, noting the quantity of alkali so added. This is evaporated and the residue incinerated, the ashes are redissolved and titrated with a normal acid solution and the difference between the alkali found and originally used computed as HCl.

Still further and more accurate methods have been suggested, but none have reached the simplicity of procedure which would make them accessible to the clinician. In a series of experiments which I made to the end of devising a ready method for the quantitative determination of HCl in the gastric secretion I utilized the limits of delicacy of the color tests as described heretofore. The materials requisite to this purpose are: a weak aqueous solution of methyl-violet, a 0.3 per cent. solution of HCl, corresponding to the normal gastric juice, and as apparatus a 100 c.c. graduated cylinder, also a 1 c.c. pipette. For the purpose of standardizing the methyl-violet solution, I added 1 c.c. of 0.3 per cent. HCl into the 100 c.c. cylinder and diluted successively with 10 c.c. distilled water; if a portion so diluted gives a reaction with methyl-violet, it is further diluted and again tested until on testing in this manner no further color reaction is noted, which can be readily done by comparing it with a similar amount of distilled water to which a drop of the methyl-violet was added. Thus, a dilution of 70 c.c. would be equivalent of the limit to indicate 0.0042 per cent. of HCl, which sum can be arrived at by dividing 0.3 with 70, the number of the dilutions.

The acid for standardizing should either be titrated and diluted to contain 0.3 absolute HCl, or the acidum hydrochloricum dilutum (U.S.), which contains 10 per cent. HCl, may be diluted with nine parts of water, yielding a 1 per cent. HCl, and this latter then mixed with 2 parts H_2O gives a 0.33 per cent. HCl.

To determine the amount of HCl in gastric juice with this and by this method, 1 c.c. of the filtered secretion is placed in the graduated cylinder and diluted repeatedly with 10 c.c. distilled water until there is no more reaction with the standardized methyl-violet solution. The quantity of HCl present may then be readily computed by taking the number of dilutions at which the limit is reached and multiplying with this the percentage of the limit of the standardized methyl-violet solution originally determined. Thus, if the gastric juice would reach the limit of indication at the fourth solution, and the original limitation were at 70 c.c.=0.0042 per cent., the percentage of HCl in the gastric juice would be 4×0.0042=0.168 per cent.

Of course, this method cannot claim chemical accuracy, but it gives a very close approximation, as I have determined by a number of control experiments, sufficiently so for clinical purposes, and it certainly is one that almost any physician can make in a very short time and without much apparatus or special chemical manipulative skill.

THE ANTISEPTIC FUNCTION OF THE GASTRIC JUICE.—Professor Kast, the Director of the new General Hospital, Hamburg, writes on this subject in a "Festschrift" on the occasion of the opening of the hospital. Spallanzani showed, a hundred years ago, that the gastric juice has an antiseptic influence, and it has since then been proved by N. Sieber, C. Schmidt, and others that this influence is due to the free hydrochloric acid which it contains. The investigations of Baumann have shown that in healthy subjects the aromatic bodies found in the urine are due exclusively to intestinal decomposition, their amount, as united with sulphuric acid, being in a direct relation with the amount of the products of decomposition in the intestine. In Professor Kast's experiments the exact relation of the ether sulphates to other sulphates in the urine was ascertained by daily examinations, a uniform diet being given, and then copious alkalies were supplied in the food, so as to neutralize the gastric HCl; and the effect of this on the ether sulphates of the urine was examined. The conclusion is arrived at that the antiseptic function of the gastric HCl is its chief function, while its digestive function is a subordinate one. This is only true so far for the products of ordinary decomposition; the case is different with the pathogenic bacteria, many of which are highly resistant organisms. We have no means at present of estimating the amount of the chemical products due to the vitality of pathogenic organisms in the intestine. It is true that Brieger regards the diamines as due to pathogenic bacteria. But the diamines are a direct product of such bacteria, not, like the aromatic bodies found in the urine, formed from a previous substratum due to bacterial activity. Moreover, we have no clear ideas on the transition of such diamines into the urine. Hence at present we have only to fall back on the physiological action of pathogenic bactera as an index of their existence. Baumann's and von Udransky's quantitative estimate of pentamethylene diamine (Brieger's "putrescin") in the urine, but originating in the intestine, constitutes the latest advance in this direction.—*British Med. Journal.*

Diagnosis of Perforative Otitis.—Dr. E. D. Spear has devised the following ingenious method of detecting perforation of the membrana tympani. A piece of clear cold glass is held close to the ear speculum, whilst the surgeon looks into the auditory canal in the usual manner with the mirror. The patient is now directed to do the Valsalvian experiment, whereupon, should a perforation exist, the vapor of the breath will be condensed upon the glass and obscure the view.—*Boston Med. and Surg. Journal.*

Sterilized Lint.—M. Regnier renders lint sterile by heating it to a temperature of 120° C. (248° F.). M. Regnier has tested the antiseptic value of lint thus prepared in dressings applied after operations of various kinds with good results. At the recent Surgical Congress he stated that he considered sterilized lint equal to antiseptic dressings.—*British Med. Journal.*

CLINICAL SOCIETY OF LONDON.

Meeting of October 25, 1889.

Christopher Heath, F.R.C.S., President, in the Chair.

Mr. Mayo Robson (Leeds) communicated a paper on fourteen cases of

Cholecystotomy

Which he had performed, eleven being for gall-stones, one for empyema of the gall-bladder, and two for distended gall-bladder due in the one case to cancer of the head of the pancreas, in the other to cancer of the bile duct. All the patients operated on for gall-stones had recovered. Of the other cases, the patient suffering from empyema of the gall-bladder was operated on when apparently dying from acute peritonitis, but after the operation she made a good recovery except for a biliary fistula, which was afterwards closed by cholcystenterostomy. The case of cancer of the pancreas had succumbed on the eighth day to a constant oozing of blood from the interior of the gall-bladder and from the suture punctures. It commenced on the day following the operation, and was apparently due to the altered condition of the blood brought on by persistent jaundice of several months' duration. In the case of cancer of the bile duct, although there was intense jaundice, there was no subsequent bleeding or other complication; this might possibly be due to the arrest of hemorrhage at the time of operation by ligatures instead of by forcipressure. Of the cases operated on for gall-stones, six patients had sought advice in consequence of the presence of a tumor combined with the usual symptoms. In these cases, Mr. Robson pointed out that the operation was usually much simpler than in the other group where no tumor could be felt, although in one, where an apparently solid tumor was exposed which was due to the matting of the viscera surrounding the gall-bladder, so that the mass appeared at first to be a malignant growth, it was found impossible to shut off the general peritoneal cavity by suturing the parietal peritoneum to the gall-bladder, as it (the gall-bladder) was practically destroyed by suppuration, and drainage with sponge-packing had to be resorted to to prevent general peritoneal infection. Dr. Churton had pointed out to Mr. Robson that he had previously seen in the post-mortem rooms a similar condition of affairs, where suppuration of the gall-bladder had led to the formation of a tumor resembling a malignant growth, but where an exploring needle pushed through the overlapping edge of the liver had revealed the presence of pus. Of the cases, five in number, operated on, on the strength of symptoms alone, Mr. Robson remarked that he believed many such cases of frequently recurring biliary colic would in future be saved the intense suffering and the many dangers of their disease by timely operation. He pointed out that these operations were not always easy, as the gall-bladder was frequently very small, and could with difficulty be brought to the surface; in fact, in his fourteenth case, the gall-bladder was shrunk to the size of the last joint of the thumb, and was lying very deeply under cover of the liver, so that when he had incised it and removed several gall-stones from the duct, the lower part of the opening could not be made to reach the parietal peritoneum, and a piece of omentum was brought up and sutured on the one hand to the gall-bladder, and on the other to the parietal peritoneum, thus shutting out the general peritoneal cavity. Mr. Robson thought that omentum grafting, first proposed by Dr. Senn for enterorrhaphy, but he thought not hitherto performed to surmount a difficulty of that kind above related, would in future often be found very useful in abdominal surgery, and perhaps especially in such cases as he had mentioned. With regard to the danger of biliary fistula, Mr. Lawson Tait had remarked that "biliary fistula after cholecystotomy could only be permanent when the operation happened to be performed at a time when a gall-stone was impacted in the common duct;" the author of the paper said that he believed this to be true generally, as proved by Mr. Lawson Tait's cases; but in the only case of biliary fistula, number three in his list, which had followed the operation in his own hands, the cause was other than gall-stones, as when he had performed the operation for the closure of the fistula he had very carefully examined the whole length of the common duct without finding an obstructing calculus. In conclusion, he remarked that he believed that with due care cholecystotomy, in the absence of malignant disease, was a procedure attended with comparatively little danger, and that the great relief which the operation conferred amply compensated for the attendant risks.

DISCUSSION.

The President remarked that the thanks of the members were due to Mr. Mayo Robson for his interesting paper, for the abstract of his cases which he had printed for their use, and for the collection of gall-stones which he had brought to the meeting.

Dr. Churton (Leeds) said that when the operation was first done the physicians used to be present, as it was novel, and apparently very hazardous. Lately they had ceased to attend. In cases of small gall-bladders packed with stones, he had found that the calculi could be reached with a needle passed through the thin edge of the liver; and he had noticed that gall-bladders containing mucus were generally cases of blockage of the duct by a single stone, and that they did not contain many stones. The cause of this he did not know. Whilst some gall-stones were softish, others were so hard and so firmly impacted in the duct that there was the greatest difficulty in dislodging them; and he had even seen cases abandoned for that reason. In one of the cases of epithelioma surrounding the duct, he thought the growth had been produced by the irritation of a gall-stone in a predisposed person.

Dr. Wilberforce Smith remarked that of the fourteen cases, eleven were in women, three in men; and of these three, two were cases of malignant disease. In the single case of gall-stone occurring in a man, he was fifty-seven years old, which agreed with his experience that gall-stones in men occurred later in life than in women. Possibly, the greater prevalence of gall-stones in women was due to the pressure of the corset on the liver.

Dr. Angel Money had had a case in which Mr. B. Pollard had operated for him. The patient was a tailor, who suffered much from "spasms," and had a large tumor in which manipulation revealed a grating sensation. After the operation he gained in health and color and strength, but had a fistula discharging bile for some fifteen months subsequently.

Mr. B. Pollard said that the tumor in that case was as large as a small cocoanut, and that many stones were removed from it. The case did well, except that a fistula remained, for which he wore an india-rubber tube, through which some sixteen or twenty ounces of bile were discharged daily. His stools were pale; but he returned to his work, and was able to do it well.

Surgeon-Major Barker had treated a case of biliary colic with a large dose (half a drachm) of pure chloroform, and the pain at once ceased. This method of treatment was recommended in Flint's "Practice of Medicine."

Mr. Knowsley Thornton thought that the difficulty which met the surgeons was the question of diagnosis. It was not always easy to distinguish between a distended gall-bladder and a tumor of the kidney. Cases also in which there were thick adhesions around the gall-bladder, with suppuration, were exceedingly difficult to diagnose. He had cut through an inch and a half of inflammatory thickening, doubting whether or not it was malignant, which thickening afterwards melted away quickly, when the operation was successful. All his cholecystotomies had healed slowly, possibly (one even after two months), but he had never had a fistula remain open. If the gall-bladder was distinct the operation was very easy. If the stone had passed into the cystic duct the operation was difficult. It was a good plan in such a case to break up the stone by needling it, and let the fragments be afterwards passed away along the duct to the duodenum. In one case he had slit up the common duct, removed the stone, and then stitched up the duct. That operation was highly hazardous, but the patient had recovered. He had been struck with the enormous amount of fluid which passed away from the gall-bladder after these operations, though he did not think it was all bile. His experience did not coincide with that of Dr. Churton. In one case, with 413 calculi in the gall-bladder, there was mucus as well, and in other cases multiple calculi also. He had tried the American oil treatment, which apparently in one case brought away a wonderful collection of green softened gall-stones. These, when examined, however, were found to be large quantities of olive oil which had undergone a curious transformation in the intestine. He considered the artificial connection of the gall-bladder with the intestine a radically wrong procedure, inasmuch as the opening in the bowel-wall was likely soon to close. He considered cholecystectomy the operation of the future. It caused no more risk to the patient, and effectually prevented the possibility of another stone blocking the cystic duct in the future.

Mr. Charles Symonds mentioned a case in which it seemed quite necessary to make the gall-bladder communicate with the intestine, as large quantities of bile were being constantly discharged. The opening made into the bowel sloughed, and the patient eventually died; but it had seemed as if no other operation could be done for him. The second operation was done six weeks after the first, when the gall-bladder had so much shrunk that it was barely more than a small tube. Altogether he had seen three cases, all of which had turned out to be of the same kind—an unfortunate experience.

A Member asked if there was any risk in allowing bile to get into the peritoneum?

Mr. Barker mentioned a case of impacted gall-stone, diagnosed as such by two well-known physicians. At the operation he found a distended gall-bladder, but no stone therein. There was a trace of hardness in the head of the pancreas. He had closed the wound, and the patient quickly benefited by the operation, but he did not know to what cause to attribute the improvement. That patient was now well.

Mr. Black suggested that Mr. Barker's patient might also have recovered without any operation at all. He alluded to a male patient, aged thirty, suffering from what was considered to be gall-stone colic, in which there was lead poisoning, the lead being contained in some home-made ginger beer. That patient had jaundice, but quite recovered without any operation.

Mr. Robson, in reply, said that, as to Mr. Barker's case, he thought the improvement was probably due to the release of the adhesions. He knew of two cases, though they were not his own, in which the gall-bladder was brought to the surface and stitched there, and perfect recovery ensued, although nothing abnormal was found on opening the gall-bladder. Possibly some cases of cholelithiasis were due to the passage of thickened mucus along the gall-ducts, and free drainage restored the membrane to a healthier state. In one classical case, after operation, the peritoneum became distended, ten pints of bile were then drawn out of it, and the patient recovered; but he nevertheless considered it most necessary to close the opening from the peritoneum and prevent the bile from entering it, knowing the large amount of bile which was secreted daily. He reserved all remarks on the subject of cholecystenterostomy for a paper to be read shortly before the Royal Medical and Chirurgical Society. He was interested in the remarks as to the treatment by oil, because his eleventh case had tried it. She had in fact taken pints of salad oil, but although masses of concreted oil were passed, they were certainly not biliary calculi, and the patient was afterwards operated upon and recovered. In one only of his cases had a permanent fistula followed the operation, and the inconvenience was very slight, as the daily discharge did not exceed an ounce and a half in amount, and was colorless and inodorous. He thought the plan of slitting up the common duct to get rid of a calculus a very hazardous proceeding, and even the crushing of a stone in it, near as it was to the thin-walled portal vein, he also considered extremely hazardous, although Mr. Thornton had done it successfuly. The operation of cholecystotomy was much simpler than that of cholecystectomy, the latter often being very difficult, and risking the leaving of a fistula at the end of a deep wound. As to the diagnosis of gall-stone, when there were deep adhesions he considered the best procedure was to open the abdomen and pass an exploratory needle in the supposed direction of the stone. As to Dr. Churton's remarks, he might say that in no case in which he had opened the gall-bladder and found it distended with mucus, had he happened to find one gall-stone alone therein.

Chlorate of Potassium.—Dr. Coghill, in a paper read at the ninth International Medical Congress, confirmed the results of Wöhler that chlorate of potassium is excreted in the urine unchanged and in the full amount ingested, and hence does not give off oxygen to the tissues. Nevertheless, besides its local uses, he finds it of value in preventing abortion, in all cases of pulmonary insufficiency, as phthisis, chronic pneumonia, and bronchitis, in anæmia, chlorosis, and general mal-nutrition. In addition it has an antiseptic action in diseases of the genito-urinary tract where there is suppuration or purulent or phosphatic urine.—*British Med. Journal.*

THE CINCINNATI
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A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

Terms, $3.50 per annum in advance.

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DR. J. C. CULBERTSON,
Editor and Publisher,
199 W. 7th Street, Cincinnati, Ohio.

Cincinnati, November 16, 1889.

The Week.

MEDICAL EDUCATION.

Notwithstanding the continuous advances made by all reputable medical colleges during the past decade, and, in fact, during the past quarter of a century, these institutions are making preparations for a long stride in the immediate future. Practical preliminary examinations will be made more rigid, to be followed by a collegiate year of not less than eight months, and in which all teaching will be in graded courses; large classes in a stifling lecture-room will be numbered as of the things of the past. The course of study will be extended over four years.

The college faculties have long desired to bring about this improved method of teaching, but in order to reach the goal of their ambition it became necessary to educate the entire medical profession up to a standpoint that would make them not only supporters of the movement, but practically pose them as the apparent demanders of it.

The marvellous advance made in our art has been an integral factor of no mean proportions, so that no longer could an occupant of a chair of surgery, for instance, impart all the instruction he desired in a course of twelve to twenty lectures. But to keep right in the front, the chair has been divided and sub-divided until a medical college is not complete with less than from four to six teachers of surgery; the same may be said of midwifery and diseases of women, where there is a division of labor to almost a similar extent, and so on clear through the faculty organization.

A result of the introduction of the new method of instruction will involve a necessity of two or three times as much teaching. The first-year students will not sit on the benches or behind desks with second or third-year classes, so the teachers of first, second and third year students will not uniformly be the same. There will have to be an adjustment that will meet the requirements of the occasion. This will all come about as naturally as water finds its level.

In contemplating the situation, we are thoroughly impressed with the belief that the time has come when medical colleges must be, to a great extent, endowed institutions. The income from students' fees are at the best precarious and inadequate, and in the days that are passed were never counted upon in the way of a just recompense to the teacher. The professors were usually supposed to derive their main compensation from an attracted consultation business, and a wealthier clientéle. With the advance and evolution of our art, other channels have been opened up to the pushing practitioner, so that the professor every year reaps less and fewer benefits from his college chair.

Not only so, but such important chairs as anatomy, physiology, histology, microscopy and others are no longer indirectly advantageous, and in order to in some measure requite the holder are coupled with a clinical position in the dispensary or hospital.

This arrangement cannot well continue with the adaptation of the new order. The professors of those departments must be guaranteed a salary commensurate with their labors. No longer can a man, be he ever so brilliant, obtain glory and renown by rehearsing the names and exhibiting the regions, muscles, nerves and vessels of a cadaver; and for such teaching it is reasonable that he should have an assured salary. And so of all didactic teachers.

The educated laity are beginning to comprehend the situation. An outcropping sign is seen in the recent action of the trustees of Cornell University in seeking the means for establishing a medical department of that institution, and with it they propose an immediate endowment fund of half a million of dollars. The College of Physicians and Surgeons, Long Island, the University of Pennsylvania, Harvard, and one or two others have been largely endowed, and only by this manner of means are they able to offer the superb inducements that are held out to young men who have qualified themselves to study medicine.

Endowed schools of medicine, with their accompanying advantages, will mark an era in medical teaching and medical schools. One of their effects will be to elevate the educational standing of the medical profession. Another will be the extermination of schools that live for improper purposes. In fact, the bornin' of such institutions will practically cease.

Is there a just claim on the part of the medical profession and their schools for a consideration by those who have abundant means? Undoubtedly there is. The poor and friendless are always with us. The highest type of our civilization is manifested in the care that is taken of the indigent and helpless sick, who are unable to provide for themselves. In this work, that is truly God-like in its character, the medical profession has ever been at the forefront. Through their aid hospitals, asylums, homes, and infirmaries have been established in every populous centre. And without their assistance much of the practical charity of the world could never have been other than as pearls before swine. Physicians have given enlightened action to all benevolent work. Nor have they ever failed to give the very best hours of their time, and give it freely and without reward, to every charitable enterprise. To count the pecuniary value of such services would be to create a mountain whose peak could never be scaled, for it would reach to Heaven's throne. The night has never been so dark and the storm has never blown so hard that a physician, whose professional education had cost years of time and perhaps all his money, was not ready to respond to a call for relief to a poor and indigent sufferer.

In such ways and by such work have the medical profession come to establish a claim for endowment for their schools. This has been acknowledged and handsomely met in the cities and institutions we have named, and the time is right here upon us to give consideration to that subject in our own city.

Our people have scarcely recovered from the start that woke them up a few weeks ago, when a railroad magnate at a little gathering of his friends, for their benefit presented a vision of the near future of this city, its magnitude and importance in the commercial world. Our only regret is that this far-seeing man did not also tell them of the educational enterprises that would be fostered until they became as veritable gems, scintillating and sparkling so as to be seen and known all around the world.

It is to the honor and glory of the medical profession that for seventy years their department of science has stood at the very head of all higher educational institutions in Cincinnati. Nor will this grand work lag or fall to the rear. Our citizens cannot afford to see others in advance of their own enterprise. They cannot afford to see our young men and women obliged to go to any other city for better educational advantages than are offered at home. Not only so, but facilities must be so perfected as to make this city the greatest centre of learning in the great Central States. In order to this end, a medical department of the Cincinnati University will need, and that very soon, an endowment fund of more than one million of dollars. THINK.

SOCIETY NOTICES.

ACADEMY OF MEDICINE.—

Programme for November 18: Discussion on "Dietetic Management of Summer Complaint." DR. E. RICKETTS will present a case of "Incision of Gall Bladder," and DR. R. W. STEWART a report on "Tait's Operation."

CINCINNATI MEDICAL SOCIETY.—

November 18, Dr. Wm. Carson will read a paper on "Epilepsy as Related to Pyosalpinx"; Dr. Leonard Freeman, "Relation of Pain and Diarrhœa to Omental Hernia"; Dr. J. C. Oliver, "The Surgical Kidney"; Dr. O. P. Holt, "Report on Renal Calculi."

FOR SALE.—A lucrative established practice for sale, with good two-story frame house and office, stables, etc., all in good order. Possession given immediately upon sale of premises, and good will of practice to go with sale. Terms reasonable. Cause for selling—wish to retire. Address,

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Care LANCET-CLINIC.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending November 9, 1889.

Ward.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st											
2nd							2				
3rd			1								
4th							2	1		1	
5th							2				
6th							2				
7th											
8th											
9th							1				
10th			1		2		4	2			1
11th	3	1					6				
12th			1				2				
13th							3				1
14th							6				
15th							1				
16th							2				
17th											
18th	2					1	5				
19th	3										
20th											1
21st								1			
22nd			1				1				
23rd							1	2			
24th							3				
25th											
26th											
27th							4				1
28th	4						2	2			
29th										1	
30th							1				
Cin. Hosp.										1	
Betts-street Hospital											
Marine H.											
Totals	12	1	4		2	1	50	8		3	4
Last week	8		8				35	14			4

The following is the mortality report for the week ending November 9, 1889.

Croup	4
Cerebro-spinal Meningitis	1
Diarrhœa	3
Dysentery	2
Diphtheria	8
Entero-Colitis	1
Measles	1
Typhoid Fever	3
Whooping Cough	1
Other Zymotic Diseases	2—26
Cancer	1
Phthisis Pulmonalis	15
Other Constitutional Diseases	6—22
Apoplexy	2
Bright's Disease	4
Bronchitis	3
Convulsions	3
Heart Disease	6
Liver Disease	2
Peritonitis	3
Pneumonia	8
Other Local Diseases	25—56
Premature Birth	1
Other Developmental Diseases	2— 3
Accidental	1
Deaths from all Causes	108
Annual death rate per 1000	17.28
Deaths for corresponding week in 1888	76
Deaths for corresponding week in 1887	142

Byron Stanton, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 28 observers for the week ending November 9, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Bronchitis, acute	16	36
Tonsillitis	15	23
Diarrhœa	12	29
Intermittent Fever	10	17
Rheumatism (acute)	10	11
Pneumonia	8	12
Diphtheria	7	13
Typhoid Fever	7	10
Dysentery	6	6
Typho-Mal. Fever	4	13
Scarlet Fever	4	8
Pleurisy	4	4
Erysipelas	3	3
Consumption (Pul.)	3	3
Remittent Fever	2	2
Cholera Morbus	2	2
Cholera Infantum	1	1
Croup, membranous	1	1
Whooping Cough	0	0
Puerperal Fever	0	0
Cerebro-Spin. Men.	0	0
Measles	0	0

Remarks.

Diphtheria prevalent at Lancaster. Reported by health officers: Akron, 8 cases, 1 death; Bellaire, 1 case; Columbus, 20 cases, 2 deaths; East Liverpool, 13 cases, 3 deaths; Fostoria, 6 cases; Hamilton, 1 1 case, 1 death; Ironton, 1 case; McComb, 3 cases, 1 death; Mansfield, 2 cases, 1 death; Massillon, 3 cases; Springfield, 6 cases, 2 deaths; Toledo, 10 cases, 5 deaths; Xenia, 6 cases; Youngstown, 2 cases; Zanesville, 1 case, 1 death; Piqua, 1 case.

Scarlet Fever reported by health officers: Ansonia, 7 cases; Akron, 1 case; Bellaire, 1 case; Cambridge, 2 cases; Canton, 3 cases; Columbus, 3 cases; Crestline, 4 cases; East Liverpool, 3 cases; Findlay, 2 cases; Fostoria, 17 cases; Massillon, 6 cases; Millersburg, 1 case; Painesville, 1 case; Piqua, 3 cases; Springfield, 1 case; Youngstown, 1 case.

Typhoid Fever reported by health officers: Bellaire, 1 case; Bloomville, 2 cases; Collinwood, 1 case, 1 death; Conneaut, 1 case, 1 death; East Liverpool, 6 cases, 2 deaths; Hamilton, 3 cases; Mansfield, 1 case; Salem, 1 death; Springfield, 2 cases; Versailles, 1 case; Youngstown, 4 cases, 1 death.

Two cases of Whooping Cough reported at Massillon.

Seven cases of Measles reported at Bellaire.

C. O. PROBST, M.D., Secretary.

Obituary.

J. M. LANE, M.D.

The following resolutions of respect to the late Dr. J. M. Lane, of Sago, were adopted by the Zanesville Medical Society November 7, 1889.

WHEREAS, God in his providence has recently by death taken from our Society and fellowship our worthy fellow-member, James M. Lane, M.D., of Sago, Ohio, therefore be it

Resolved, That in his death we have lost an old and respected member of our Society—one justly esteemed for his professional ability, his kind and genial companionship, his modest and unassuming demeanor, his honor in professional intercourse, his consistent moral and religious life, and his faithful performance of the arduous duties of his life-long work in a wide and hard field of labor.

Resolved, That although we shall miss him from our midst, we shall cherish a warm remembrance of his virtues as worthy of our highest esteem.

Resolved, That we extend our sympathy to the family and friends of the deceased.

Resolved, That the Secretary shall place a copy of these resolutions on our records, furnish one to the family of the deceased and one to the press.

H. MCCREARY,
J. L. GEYER,
A. E. BELL, *Committee.*
J. S. HALDEMAN, *President.*
J. C. CROSSLAND, *Secretary.*

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A fee of $5.00 will be charged for such examinations. LEONARD FREEMAN, M.D.,
J. C. OLIVER, M.D.,
OTIS L. CAMERON, M.D.,
OLIVER P. HOLT, M.D.,
Curators and Microscopists.
Are prepared to make examinations of river water, milk, etc., for the typhoid bacilli.

Miscellany.

PARISIAN MEDICAL NOTES.

THE THEATRE VIEWED FROM A HYGIENIC AND MORAL STANDPOINT.

[Extracts from the Feuilleton of the *Journal de Medecine de Paris.*]

By T. C. MINOR, M.D.

Hygiene and morality are, as everyone knows, united by very close bonds: these two sciences may be compared to twins of the Siamese variety; perhaps it would even be better to consider them as one person living under two names, viewed from different standpoints. I shall not say whether these be moralistic or hygienic, for hygiene and morality mutually support each other. "*Mens sana in corpore sano*" is an axiom admitted by all, though the reciprocal is not always true. The healthy mind, that hygiene assures us is contained in such a body, is it not the preserver *par excellence* from all moral disturbances, that are almost always only the more or less direct effects of morbid physical conditions? Excessive vice is most certainly a mental malady or at least a neuropathy becoming centrifugal after having been centripetal. Without wishing to place all individuals, of both sexes, subject to eccentric action in the same category as the hysterical and insane, we recognize that many passionate outbreaks are incompatible with a perfectly healthy brain. There is very often no anatomical alteration, it is a purely dynamical disorder, *sine materia*, a neurosis; but may not material but very minute alterations escape our investigations in such cases? Though the organism is not always apparently affected, its functions are necessarily attacked. The proofs of criminal anthropology confirm this opinion. It is to-day a generally admitted fact that criminals are from degenerated beings; that crime is either hereditary or acquired, in the latter case among victims of alcohol, tobacco, and opium, in whom such agents have altered the functions, and very often the anatomical structure, of the nervous system. As to the passing excuses of the passions, these also have a pathological origin. The ancients held that anger was momentary insanity; the same is true of all excessive passions that arise from abnormal physiological excitation.

Since it is impossible to separate morality from hygiene, we shall approach the study of the theatrical question from a hygienical, moral, social, anthropological standpoint. Social questions are almost all inseparable from medicine; we might even say that the entire social question, including the problems of pauperism, crime, vice, etc., may resolve itself into one medical question, the disease, the pest of the people, if we accord the word disease its largest acceptation. Theatres in general present two sides for our consideration: on one hand we have the theatre in its personality, on the other the public who visit its entertainments.

A long time since one of the editors of the *Figaro*, Octave Mirabeau, in an article which made him notorious and disliked, stigmatized the profession of dramatic artists as authors of immorality — men obliged under certain circumstances to counterfeit gayety at the very moment they experienced the greatest grief. We shall not endeavor to reverse this ingenious paradox, and strive to prove that these acts of pretended immorality might as well be considered acts of heroism, and that other than the dramatic profession are liable to the same criticism.

Is the profession of actor an unhealthy one? It is said they lose their sleep; the same objection applies to the audience, exception being made of those spectators who sleep through some dull plays. Back of the scenes are currents of air, electric currents, and gases that at times offer real inconveniences; but actors and actresses care but little for these, and, as a rule, keep to an advanced age an appearance of youth without having recourse to any Mephistophelian philters.

The climate of the scenic regions always appears soft; the only known storms are the thunders of applause; the Heaven is always serene, if we are to judge by the stars that nightly appear on the stage; and the beautiful ballet-girls expose their femoral regions and fully evidence the fact that there are no lean legs due to prolonged fasting.

The stage workmen and machinists are evidently exposed to the accidents inherent to their occupation; but what profession is there where danger is an unknown quantity?

Among the crowd of spectators we find a certain number who are pleased to swear at the overheated atmosphere of the theatre. These complaints were just at an epoch when gas was used for illuminating purposes, but since the introduction of the magnificent electric light of the incandescent and hermetically sealed variety, enclosed in elegant imitation flowers of ground glass—a light that met the addition of fair ventilation, a pure atmosphere without undue heat. Happy sanitary progress has been made in this line in all first-class Parisian theatres. "Our theatres are no longer furnaces," remarks Francis Sarcey, our eminent *confrère* in journalism, whose competence to judge of such matters, from experience, is unquestionable. There should be made grottoes of coolness for hot summer nights. Since our theatres are lighted by electricity, and may be cooled by artificial methods, no more poetic appellation than grottoes can be applied. There need be no elevation of temperature save that resulting from the crowding of human bodies in an enclosed space, perfectly ventilated. Do you desire to experiment? Enter a theatre at eight o'clock in the evening, when the house is but half filled, you will be struck by the difference in temperature: the streets were firey hot; the inside of the theatre is pleasant. You breathe easily and with comfort. Following the plan of Francis Sarcey, the velvet cushioned winter seats have been replaced by cane chairs.

The organs of the spectators may be impressed in different fashions. We have spoken of thermic phenomena, but what of the olfactory, auditory, optic, stomachic, senses of the audience? The odors of the theatre are variable; they may be exquisite or execrable, following the seasons and the positions in the house occupied. The seasons only influence their intensity: hot weather intensifies the odors that the winter diminishes. The nature of the odor is dependent on the character of the spectators: they are mild and pleasant when the gathering is from the upper classes of society, nauseating and disgusting when the vulgar herd is gathered. The odor of a theatre is worse on Sunday than any other day of the week, for obvious reasons. On week days the orchestra chairs and dress circle are indifferent, the odor of the balcony and boxes exquisite, the second gallery perfumes of a doubtful quality, the third gallery is mixed in its smells, while the top gallery, or Paradise floor, is fetid and disgusting. The odors noted from the boxes and balcony are due to the delightful artificial scents exhaled from the robes of elegant dames of fashion and the delicious natural aroma arising from the soft flesh of bare arms and low necks: "An incomparable aroma. The most powerful and only aphrodisiac for the devotees of Love," as has been noted by Paul Bourget (see *Profiles perdus*). Have you ever visited Wednesday nights at the Comedie Francais and Friday evenings at the Opera? It is there we advise the most delicate to go when they desire to experiment on psycho-physical phenomena with reflex effects.

The ear, especially, is charmed by music rather than by words, that which induces many dramatic authors to interpolate musical effects in comedy plays, where it was formerly thought that music was out of place. Music has an altogether special effect on our organisms, and is capable of modifying our dynamical condition. The French love life, movement, noise; they wish to be excited, as they are active in temperament.

In addition to music, that which dominates all theatrical sensations is visual. The eye is pleased with rich colors, beautiful forms, the expression offered by grouping, graceful dancing, gestures, and smiles commingled with laughter—all these entrance our brains, and communicate, through the nervous system, an infinite variety of delightful sensations. It is certainly true that certain physiological phenomena are directly excited. It is more than probable that a single peep at the legs of the ballet girls gently agitated in the voluptuous dance is more certain to stimulate canicular cells in the masculine body than those hypodermics with a Pravez syringe advocated by our noble Brown-Séquard, though the young ladies of the ballet may suffer from a natural deprivation of those organs that form the basis of the pretended regenerative Elixir of Life.

Gentle reader, you may laugh when we tell you that the stomach is strongly affected by theatrical representations. But you are wrong in so doing, for the stomach and function of digestion is much influenced by many performances: (1) Because in our haste to secure good seats we eat our dinner too rapidly; (2) because we suffer from hunger and thirst during the peformance, or, if we can afford gourmandizing, we eat too many bon bons and ices and imbibe too much lemonade, sorbet, or wine, thus throwing our pepsiniferous cellules into a state of consternation; (3) because the Drama, by exciting our emotions, is capable of producing attacks of indigestion.

In spite of these small inconveniences, the theatre is a precious agent to calm distracted and troubled minds. After the arduous labors of the week, the workingman finds his mental rest and enjoyment in the Sunday theatres, and happiness among the masses is thus promoted; besides, the theatre is eminently civilizing. No remedy is so liable to be a success in hypochondriasis as a course of theatre-going; it has saved many a mind from insanity, especially that variety known as religious monomania. Comedy is the universal specific for all forms of melancholia.

Paris Exhibition.—W. R. Warner & Co. have received a silver medal at the Paris World's Fair, being the highest of its kind, in recognition of the following claims:

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PRINTING.—The Lancet-Clinic office receives orders for all kinds of printing.

THE MEDICAL PROFESSION AND THE OPTICIANS.

[*American Lancet.*]

On various occasions we have directed attention to some of the relations between those who sell spectacles and those who prescribe them. In no other part of medicine is the art of "counter prescribing" so unblushingly conducted. It is the rule for opticians to advertise that they examine eyes for nothing. If only they can sell the spectacles, they give their professional services for nothing. We fancy that quite a stir would show itself in any community if the druggists would advertise "consultations free" to all who bought their medicines of them. And yet this is exactly what most opticians do.

In truth, the method is an old one, and has not changed as all other things pertaining to it have changed. We suppose that in time an adjustment will be made in accordance with the spirit of the age.

The *Medical and Surgical Reporter* tells the following respecting the well known firm of Queen & Co.: To oculists they send out a circular saying they have opened a new place of business in which only oculists' prescriptions would be filled, for the reason that patients would suffer less detention than at the large store. To the laity a circular was sent, a copy of which the *Reporter* publishes, in which the firm state that they have adopted a method of examination which is wonderfully effective, being the result of a study of the subject for thirty years. By visiting their store both time and expense are saved. On the one hand, this firm appeals to the oculists for their prescriptions, and on the other, to the individuals of the laity, for them to come directly to their store for consultation, in order to save time and expense. It would seem as if the manager of this firm must have lost his head, or he would not endeavor to sit on both sides of a sharp fence.

But since it is business he is after, he has the right to adopt such measures as will ensure the largest amount. The reason why it seems to us that his mental balance is disturbed is, that he has awakened needless opposition to his business.

SAMPLES of Sander & Sons' Eucalypti Extract (Eucalyptol), gratis, through Dr. Sander, Dillon. Iowo. Eucalyptol stands foremost as a disinfectant, is a perfect check to inflammatory action, and invaluable in zymotic diseases.

CONGENITAL POLYPUS OF THE LARYNX.

[*London Med. Recorder.*]

Very few cases of congenital growth in the larynx have hitherto been recorded, but it is highly probable that the occurrence is by no means so rare as the scarcity of observations would seem to imply. The difficulties of laryngoscopic examination in early infancy are very great, and the symptoms—hoarseness of cry and difficulty of breathing—are put down to hypothetical causes. A case of 'congenital polypous laryngitis' was reported by Dr. Carlos M. Desvernine to the Academia de Ciencias, of Havana, on Aug. 25, (*Revista de Ciencias Medicas* Sept. 5, 1889). The patient was a delicate strumous boy of 7, who had suffered from dyspnœa and hoarseness since birth. Exploration of the chest revealed signs of tracheal or laryngeal obstruction, while the laryngoscope showed that the whole of the right and two-thirds of the left side of the vestibule of the larynx were occupied by a series of lobulated growths pale yellow in color. Dr. Desvernine was able to count seven distinct tumors which, at least at their upper extremities, seemed to be completely independant of each other. The only pervious part of the laryngeal orifice appeared to be a small space in the right posterior angle of the glottis. Surgical interference was declined by the parents till a few weeks later when tracheotomy had to be performed to save the little patient from impending asphyxia. When he had recovered from the operation, Dr. Desvernine proceeded to attempt to extract the growth with forceps, operating at intervals of from three to six weeks, as each sitting was followed by acute congestion. When a considerable clearance had thus been made, an eighth tumor was discovered deeply situated below the glottis, on the right side. The size of this growth and the breadth of its base making it impossible to remove it through the mouth, laryngotomy was performed. The tumor was found firmly attached to the right upper edge of the cricoid cartilage, occupying almost the whole of its laryngeal surface on that side. It was cut away with curved scissors, the seat of implantation being afterwards thoroughly curretted. The operation was well borne, but the skin wound became the starting point of scrofulous ulceration, and this was complicated by severe general furunculosis. A few months later the voice again became hoarse, and a ninth growth was discovered attached by a pedicle to the right vocal cord, close to the arytenoid cartilage. This was extirpated with cutting forceps, the point of attachment, as well as the whole upper surface of both cords, being then cauterised several times with chromic acid. Three months later, Dr. Desvernine made 'a scrupulous laryngoscopic examination, and, finding a larynx absolutely sound, without the slightest trace of what had happened in it,' he removed the tracheotomy tube which had been worn till then. Since that time both respiration and voice have been normal. The growth on microscopic examination presented the characters of papilloma covered with stratified epithelium. Dr. Desvernine gives a summary of all the cases—sixteen in number—of congenital laryngeal polypus, which he has been able to find recorded in medical literature.

THE DISTRIBUTION OF VISCERAL NEW GROWTHS. — Dr. Norman Moore (*Med. Press and Circular*) says:

1. That carcinoma of the stomach generally grows from the pylorus towards the cardiac end of the cavity.
2. That the growth is rarely continued into the œsophagus, but more often than into the duodenum.
3. That in about one-fourth of the cases the growth extends directly into the lymphatic along one or both curvatures of the stomach, forming dense masses which may often be felt through the abdominal wall.
4. That after these lymphatics its most frequent seat of growth in continuity is the liver.
5. That it may also grow in continuity, though with less frequency than into the liver, into the diaphragm, omentum and mesentery, pancreas and transverse colon, and less often still into the ascending colon, spleen, vertebral column and vena cava inferior.
6. That in two-thirds of the cases there is secondary growth, and that in one-third these are wide-spread, affecting one or more regions.
7. That the commonest seat of secondary growth is the liver, and next to it remote lymphatics, especially the glands in the hilum of the liver, the lumbar and mesenteric glands, and those of the mediastinum.
8. That after these the pancreas and lungs are most often the seat of secondary growth, and with nearly equal frequency.
9. That secodary growths are rare, but may also occur (in the order of frequency) in the peritoneum generally, and in the kidney, and least often and with equal rarity, in the heart, spleen, and supra-renal bodies.

ANTISEPSIS IN TYPHOID FEVER.— Dr. O. C. Tarbox (*Med. Record*) from a study of antiseptic treatment of sixteen cases of typhoid fever, says:

1. It is most rational to produce intestinal antisepsis in this fever, knowing as we do its specific cause to be a germ, and in carbolic acid and tincture of iodine we have prompt and safe germicides. The medicines are quite easily borne by the stomach, if given in lemonade or lemon syrup, and especially after taking some nourishment.
2. By such antiseptic treatment, if given early, I believe the disease is shortened, and the severity lessened. With the exception of one case, a rare one in point of severity, all of my cases ran a much shorter course than under former plans of treatment. There was a noticeable absence of the nervous symptoms so common to typhoid fever in nearly all my cases, such as delirium, *subsultus*, carphologia, comavigil, and the like. Not one of the sixteen cases had active delirium, requiring restraint.
3. Constipation was the rule in about every case. Although I have not statistics on that point, I can remember no case in which I was obliged to check or moderate a diarrhœa; oftener mild cathartics or enemas were necessary.
4. The disease is more easily handled, and the danger to others is less by this plan of treatment. In all cases I used, of course, every precaution in that respect, by ventilation, frequent change of clothing, and thorough disinfection of the discharges by copperas and chloride of lime, and it has seemed to me I was most fortunate in confining the disease in every instance to the patient, none others taking it. This is an all-important point, and I believe the result was due largely to the intestinal antisepsis. Fortunate we shall be if we shall

succeed in preventing the spread of enteric fever in a majority of cases. The above report tends to show, in my opinion, that it can be done.

GRAVES' DISEASE AND INSANITY. — Dr. C. K. Clarke, Medical Superintendent, Asylum for Insane, Kingston, Ontario, records two interesting clinical cases, one of which claims particular attention, as exophthalmic goitre appeared to be possibly the cause of insanity. The cases are published as contributions to the mass of evidence that is gradually accumulating to demonstrate the exact nature of the connection between the thyroid gland and the nervous system. The first case was that of an unmarried female, of thirty, who never enjoyed robust health, and who, four years previously, first displayed signs of physical weakness. Two years afterwards it was observed that her eyes were more prominent; and about the same time she complained of "smothering" sensations attributed to heart disease, and more or less troublesome headaches. Shortly afterwards a soft goitre was noticed; the patient became exceedingly nervous and irritable; and this condition culminated after eleven months in violent mania, which lasted a month, and terminated in death from exhaustion. The second case was that of an unmarried man, of forty-six, who for eighteen years had been a resident of an asylum. His appearance was remarkable, and to the most superficial observer suggested exophthalmic goitre. He complained of palpitation and irritable heart; he became dropsical, and was tapped twice; but gradually sank and died. At the necropsy the pericardium was found inflamed, and filled with six ounces of fluid; the heart was flabby and slightly enlarged, but nothing of an organic nature was found in the organ to account for death.—*American Journal of Insanity.*

BROMOFORM IN WHOOPING-COUGH.— According to Dr. Stepp (*Deutsche med. Wochen.*), whooping-cough is readily cured by bromoform. In a large number of cases no evil results have been noted, and its action upon the disease has proved most satisfactory. He orders it in very frequent doses, children taking from five to twenty drops during the twenty-four hours. It is very sparingly soluble in water, and should therefore be prescribed in alcohol. The Doctor believes that under this treatment the bronchial catarrh and lobular pneumonia do not generally occur. He believes also in the prophylactic power of the drug, other inmates of the family being protected from the disease by taking it in ordinary doses. Dr. Stepp believes that bromoform is either excreted unaltered by the lungs or is separated from its elements, and that the free bromine is excreted by the lungs. In this way an effect on the bacilli of whooping-cough could be easily supposed to result.—*Canada Lancet.*

OPTIC ATROPHY IN LOCOMOTOR ATAXY (*Le Progrès Méd.*).—With regard to the atrophy of the optic nerve which is seen in tabes, Benedikt in 1881 announced his remarkable conclusion that if optic atrophy were found as early as the first stage, or even as late as the beginning of the second or incoördination stage of tabes, then there would be complete arrest of the other symptoms. He even went further, and said that when complete blindness appeared it improved the motor symptoms. M. Déjérine, with the help of Dr. J. Martin, of Geneva, has made careful examinations of more than a hundred cases of locomotor ataxy, and has found some partial corroboration of Benedikt's view. When the atrophy of the optic nerve comes on during the ataxic state he has not found the ataxy increase; and, further, it is a most exceptional thing to find a patient at the same time blind and ataxic. That was only the case in two out of a hundred cases. There is no true analogy between the paralyses of the ocular muscles, which are due to peripheral changes often transitory, and the optic atrophy. The paralysis of the third nerve never extends to all its branches.—*Practitioner.*

AN Anglo-American Vienna Medical Association has been formed for the purpose of furnishing information to English-speaking medical men coming to study in Vienna. The office will be at No. 12, Landesgerichts Strasse. Membership will be open to any British or American physician or medical student, on payment of an entrance fee of one gulden.—*British Med. Journal.*

New Subscribers to the LANCET-CLINIC can begin at any time during the year.

Bibliography.

A SYSTEM OF OBSTETRICS, by American Authors. Volume I.

Edited by BARTON COOKE HIRST, M. D., Assistant Professor of Obstetrics in the University of Pennsylvania. Illustrated. Philadelphia: Lea Brothers & Co.

The marvellous industry of the corps of workers in the various specialties in medicine is nowhere shown to better advantage than in the "Systems" and "Encyclopædias" that have enriched our professional literature within the last very few years. In this work undertaken by Professor Hirst the department of obstetrics is presented in detail by some of our best writers and teachers.

The first chapter is a historical narrative of the art by George J. Engelmann.

"The Physiology and Histology of Ovulation, Menstruation, and Fertilization: the Development of the Embryo," next claim attention in a chapter by H. Newell Martin, F.R.S., M.D., of Baltimore. This chapter is well illustrated and made attractive to the student, and all doctors should be students when such a work as this is within their reach.

In the natural order of things the next chapter is devoted to "The Fetus: Its Development, Anomalies, Monstrosities, Diseases, and Premature Expulsion," by Barton Cooke Hirst, M.D. Like the preceding, this chapter is also freely illustrated, and very fully discusses the subjects of abortion, miscarriage, and premature labor, their cause and treatment.

"Pregnancy: Its Physiology, Pathology, Signs, and Differential Diagnosis," by William Wright Jaggard, A. M., M. D. The writer follows very closely in the prints found in the text-books of the day.

"The Conduct of Labor and the Management of the Puerperal State" is by Samuel C. Busèy, M.D., of Washington. The chapter on "The Mechanism of Labor, and the Treatment of Labor Based on the Mechanism" is by R. A. F. Penrose, M.D., LL.D. These chapters are admirable presentations of the subjects treated.

"The Use of Anæsthetics," by J. C. Reeve, M.D., is a chapter that will be hailed with delight as presenting the observation and experience, as well as teachings, of one of the most careful and systematic observers in the medical profession. The author has for many years given much of his time to a study of the practical uses of anæsthetics. Recently the profession have had occasion to observe the singular phenomenon of an English physician copying the chapter and sending it to the *London Lancet* as his own production, where it was published. Attention being at once directed to the infamous plagiarism, the publishers at once apologized for their share of the meanness, and which we are quite ready to believe was entirely unintentional on their part.

The concluding chapter is on "The Anomalies of the Forces in Labor," by Theophilus Parvin, M.D., LL.D., whose name alone is sufficient to indicate the fact that it is entirely complete.

A SYSTEM OF OBSTETRICS, by American Authors. Volume II. 1889.

Begins with a chapter on "Diseases and Accidents of Labor," by Theophilus Parvin, M.D., including under this head lacerations and hemorrhages, both before and after labor.

Chapter second is on "The Use of the Forceps and Embryotomy," by Edward P. Davis, M.D. This is one of the most useful chapters in the work; it is well illustrated, and the author carefully describes the use of the instruments most frequently needed by the general practitioner of medicine.

"Premature Induction of Labor" and "Version" are the subjects of two chapters by James C. Cameron, M.D., which brings us to "The Cæsarian Operation, Symphisiotomy, Laparo-Elytrotomy, and Laparo-Cystectomy," by Robert P. Harris, A.M., M.D. This chapter discusses the capital operations that are rarely demanded for the delivery of the pregnant woman, and we take occasion to congratulate the editor and publisher in being so fortunate as to obtain the services of Dr. Harris to write this chapter, as he is undoubtedly more familiar with the literature of the subject than any other living man.

"Puerperal Infection," by Henry Garrigues, M.D. This is a chapter that will be very often referred to, as well as the next, on "Inflammation of the Breast and

Allied Diseases Connected with Childbirth," by the same author. A continuation of the subject of puerperal fever is by Harold C. Ernst, M.D.

The editor himself here comes in with a chapter on "Some Complications of the Puerperal State Independent of Septic Infection."

"Insanity and Diseases of the Nervous System in the Childbearing Woman," by James Hendrie Lloyd, M.D.

"The Management of the Diseases of the Newborn Infant," by J. Lewis Smith, is one of the most practically useful chapters in the book, and is followed by Stephen Smith, M.D., on "The Surgical Diseases of Infancy and Early Childhood," which will be very often referred to as pertaining to affections of daily observation.

"Congenital Anomalies of the Eye," by G. E. DeSchweinitz, is the final chapter of a really great work, that should receive a very large patronage from the American medical profession, and it is with no small degree of pleasure that we commend it to them as an invaluable work of reference.

A TEXT-BOOK OF ANIMAL PHYSIOLOGY, with Introductory Chapters on General Biology and a full Treatment of Reproduction. For Students of Comparative (Veterinary) Medicine and of General Biology.

By WESLEY MILLS, M A., M.D., L.R.C.P. (Eng.), Professor of Physiology in McGill University and the Veterinary College of Montreal. With over 500 illustrations. New York: D. Appleton & Co. Cincinnati: Robert Clarke & Co. Price, $5.00.

It is a genuine pleasure to welcome a volume like the present one, bearing evidence upon every page of the influence of comparative and experimental methods. There can be no doubt that there is room for a work attempting to vitalize the dry facts of physiology with suggestions from general biology, embryology, pathology, etiology, philogony, and comparative morphology; nor should we seriously complain if the result be somewhat heterogeneous. It is especially desirable in American medical colleges, where even a nominal course in comparative anatomy and physiology and embryology is rarely offered, to be able to place in the student's hands a compendious and not too elaborate discussion of these sciences in their relations to human physiology. For such a purpose Dr. Mills' book is admirably adapted. The didactic purpose is constantly prominent, and the materials are freely, but generally judiciously, selected from the whole range of recent biological literature. The illustrations especially, which are made to take the place of detailed anatomical descriptions, are liberally and effectively employed; that nearly all are recognized as old friends being no disadvantage. The kind of diagrams so largely used by Ranney is here wisely utilized. The first 146 pages are devoted to a review of the fields of general biology, embryology, physiological chemistry and the methods of research. The remainder of the work presents the several systems in the usual sequence with illustrations drawn from the comparative domain.

Most anatomists will vividly remember what a new light flashed upon the significance of functions of vision and circulation, for example, after painfully working out the details of development and comparative homologies. The results of such labor is supplied with judicious conservatism in the present work.

Especially to be commended is the extended illustration of the use of the graphic method in physiological research. A better presentation of the nerve-muscle experiment might have been desirable, but the illustrations of apparatus actually used in physiological laboratories are numerous and excellent.

Perhaps the least satisfactory portion of the book is the chapter devoted to the brain. The attempt to apply the facts of comparative anatomy and physiology is but partially successful, and the discussion of the results of experiments in localization is curiously inadequate, while the sequence of topics is confusing. The degree of agnosticism expressed by the author seems to do scant justice to recent investigations.

Where there is so much to commend it would be captious to pluck at minor flaws, but the reader is sometimes forced to wish that greater pains had been taken in the choice and condensation of the language, as when the operator, in the experiment upon leg-reflexes, is directed to suspend a decapitated frog by the lower jaw.

The condensation of the chapter on the "Chemical Basis of the Animal Body," from Foster's "Physiology," forms a useful appendix, which possibly ought to have contained an acknowledgement. On the whole, the volume deserves the success which seems assured.

THE STORY OF THE BACTERIA AND THEIR RELATIONS TO HEALTH AND DISEASE.

By T. MITCHELL PRUDDEN, M. D. New York and London: G. P. Putnam's Sons, 1889.

This little book is intended for the use of the lay reader, but it is well adapted to the use of many physicians. We believe we are correct in saying that there are many physicians who have inadvertently or unavoidably fallen somewhat back of the literature of bacteriology, and, appreciating their position, scarcely know where to begin in the study of the subject. For these there is no better beginning than with the "Story of the Bacteria," so beautifully told in such simple language as is here used. To the lay reader it will certainly prove attractive, for it reads like a fairy tale, with the additional grace of revealing the family secrets of the tiny creatures. J.M.F.

HARVEY ON THE CIRCULATION OF THE BLOOD.

WILLIS's translation, revised and edited by ALEX. BOWIE, M.D.

This little book is one of the many valuable books published in "Bohn's Libraries." Three separate essays are found in this volume: 1st. An anatomical disquisition on the motion of the heart and blood in animals. 2d. An anatomical disquisition on the circulation of the blood. 3d. A second disquisition to John Riolan, jun., in which many objections to the circulation of the blood are refuted. The clear reasoning and logical precision of the author cannot fail to impress the reader's mind, for he had set for himself a great task, and most thoroughly did he rout Error from the comfortable post she had so long held.

A selection from his preface was no more true in his day than it is at the present time, and I take the liberty of here quoting a few of his remarks. He says "True philosophers, who are only eager for truth and knowledge, never regard themselves as already so thoroughly informed but that they welcome further information from whomsoever and from wheresoever it may come; nor are they so narrow-minded as to imagine any of the arts or sciences, transmitted to us by the ancients, in such a state of forwardness or completeness that nothing is left for the ingenuity and industry of others."

The book is very valuable to every member of our profession, as it is one of the greatest of the landmarks which indicate our approach to perfect knowledge. To the medical profession the work is historical in the sense above referred to.

We would recommend the purchase and careful perusal of this book, for it shows how truth will prevail over error, even though the authority of the past and the beliefs of the present combine to defeat true scientific progress. J.C.O.

THE INSANE IN FOREIGN COUNTRIES.

By WILLIAM P. LETCHWORTH, President of the New York State Board of Charities. New York and London: G. P. Putnam's Sons, 1889.

This valuable volume is the outcome of an investigation of foreign charitable institutions, in which special attention was given to the various kinds of provision made for the care of the insane poor, the aim of the author being to obtain from a personal and practical point of view a knowledge of the most humane and economical methods adopted for caring for the insane, in all of which he seems to have been wonderfully successful. His observations extended through the insane asylums of England, Scotland, Ireland, the Continental countries, including an entire chapter in his description of the colony of Gheel, and another on the Provincial Insane Asylum of Alt-Scherbitz. The work is interspersed with excellent illustrations, and contains a mass of information that should be possessed by every educated physician.

TRANSACTIONS OF THE LOUISIANA STATE MEDICAL SOCIETY at its Eleventh Annual Session, held at New Orleans, Louisiana, April 9, 10, and 11, 1889.

New Orleans: L. Graham & Son, printers, 1889.

This report contains an unusual number of highly interesting contributions. From it we judge that the Society is in a most healthful condition. A striking and not unpleasant feature of the publication is the large number of short papers which it contains. Too often men with little to say take occasion to drum up a great deal, that would be better omitted, for the sake of presenting a formidable paper. We do not, of course, refer to the productions of Dr. Joseph Jones, which occupy almost the entire latter half of the volume, and contain much that is good, notwithstanding their hasty preparation, of which the author complains. J.M.F.

TRANSACTIONS OF THE WASHINGTON OBSTETRICAL AND GYNECOLOGICAL SOCIETY. Volume I. October 2, 1885, to May 20, 1887. Founded October 7, 1882.

We do not see the wisdom in the publication of society proceedings in book form. Nevertheless the Washiogton Society, having the majority, may do as she will. The volume contains many valuable papers and some interesting discussions. It is worthy the perusal of gynecologists.

J.M.F.

HARMLESSNESS OF SACCHARIN.—The *London Medical Recorder*, April, 1889, says, with reference to the generally current idea that the use of saccharin is injurious, the following report has been published by Dr. Thomas Stevenson, official analyst of the Home Office: 1. Saccharin is quite innocuous when taken in quantities largely exceeding what would be taken in any ordinary dietary. 2. Saccharin does not interfere with or impede the digestive processes when taken in any practicable quantity. 3. His personal experience is that saccharin may be taken for an extended period without interfering with the digestive and other bodily functions; hence there is no reason to think that its continued use is in any way harmful.

INSTRUCTION FOR WOMEN.—Dr. Mary Putnam Jacobi, in the *Times and Register*, says: "Women's colleges are needed to provide special drill, oversight, and in some directions instruction. But each should constitute an annex to a university intended for the highest instruction of studious youth irrespective of sex. I confidently look forward to the time when this will be the case, and consider it a distinct misfortune that any other system has ever prevailed."

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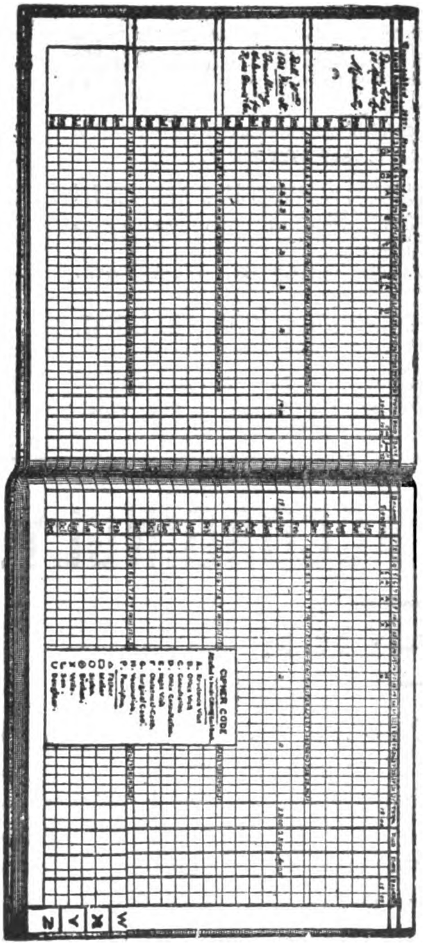

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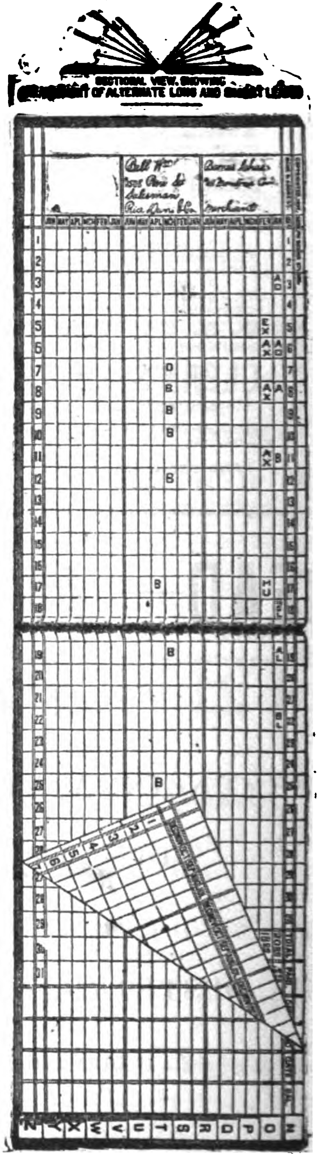
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NEW SERIES VOL. XXIII. Cincinnati, November 23, 1889. *WHOLE VOLUME LXII.*

Correspondence.

CHIT-CHAT FROM LONDON.

LETTER NO. V.

LONDON, September 10, 1889.

Editor Lancet-Clinic:

Medical societies in the great Republic of Physic are watch towers in the world, science, religion, and virtue in them finding their chief exponents and defenders; error, superstition, and debauchery their most uncompromising accusers. In these societies are gathered the best informed physicians of their locality; their members are recruited from the higher race of men possessing the latest acquired faculties, endowed with high intellectuality as well as the power of abstract reasoning, while those present, it may be assumed, are there to correct, if necessary, some error, to disclose a new fact, or bring old ones into such a shape as shall be a guide to the discovery of new truth. Exact ratiocination, rather than self-interest, presides over their deliberations, and to the poor they are light-bearers along the dark passages of life.

The larger number of medical societies in London hold their meetings in either Berners or Chandos Street, Cavendish Square. The suite of rooms in Chandos Street, in which several societies in turn hold their sessions, are well suited for bringing the associates into close proximity and for hearing each member as he speaks. To some of these societies are attached large circulating libraries, and flitting among these books are seen men of whom we hear nothing, storing away the choice crystallized axioms of the deep thinkers in medicine, like a numismatist hiding his coins from the gaze of the world.

"Strongest minds
Are often those of whom the noisy world
Hears least."

To note at these societies the affiliations of some and the rivalries of others, is better than going to the play. It is still more delightful when one is in possession of the private history of each man, as well as the clue to his character and bearing, while at the same time being

"To their faults a little blind,
To their virtues very kind."

The fool, unconscious of his folly, who seizes upon passing opportunities and plods unweariedly in pursuit of one object, in time loses much of his foolishness, while it so often happens that genius is lost in the mazes of life. There was one possessing rare genius as well as many opportunities for being great, and another, where are they?

"A pebble in the streamlet scant
Has turned the course of many a river;
A dew-drop in the baby plant
Has warped the giant oak forever."

At the Dermatological Society, held in the afternoon, there are shown quite a variety of the rarer forms of skin disease. The first case of interest is a man thirty-six years of age, who, by reason of the skin being immovable and adherent to the underlying structures, might be termed petrified. There is complete stiffness of all the joints, even those of the fingers, and there is but very slight movement in the lower limbs. The sclerosed, atrophied skin is of a yellowish shade, being of a dead white color over the joints, and blue or lilac over the fingers and toes. This man had no rheumatism, and the disease, which never comes on one part alone, progressed in this case from the feet, then over the body and down the arms. There was also shown an instance of hydroa pemphigus having peculiar interest. The vesicles were of the size of a pea on the face, lips, and conjunctivæ, accompanied with large bullæ on the right arm. There was also a remarkable case of disseminated lenticular cancer in a man and one of ichthyosis in a boy, being combined, singularly, with severe hyperidrosis of arms, hands, and feet. A man of middle life had xanthoma multiplex. The entire body was covered with distinctly circumscribed, small, raised, chrome-yellow colored plaques. The intervening skin was of ordinary color. There was no affection of the mucous surfaces of the mouth. It had made its first appearance eight months ago. Dr. Hutchinson, nor others present, had ever seen such an instance. A patient, after absenting himself from treatment, continued to take liquor arsenicalis five minims three times a day. In a month's time his skin was changing color, and he now presented a well-marked case of arsenical pigmentation. The entire face, as well as the body, arms, and legs, were discolored. The skin of his face was dark and freckled with still darker spots. Usually arsenical bronzing affects the covered parts only and the flexor rather than the extensor aspects of the arms, and this, with the absence of asthenia, distinguishes it from Addison's disease. There was shown a man of about forty years of age with adenoma of the extremities below the knees. This was attended with considerable pain. The ends of the fingers as well as the toes had sloughed off. He never had syphilis.

The Prince of Wales, who is much loved by the poor, whose friend he is, while advocating the claims of a hospital for lepers, mentioned that one of these unfortunate men was then serving goods from a provision warehouse in London. This statement roused general attention to this form of disease. A case of leprosy had lately been brought before the Harveian Society, in whom were combined the three varieties of the disease. The man, who had lived all his life in India, had been affected seven years. The symptoms present were macula eruption upon the body, complete anæsthesia of both forearms, thighs, and legs, with a large perforating ulcer on one foot. The tubercles had disappeared from the face, and were now seen in the pharynx and larynx. The ulnar and popliteal nerves were greatly enlarged, and there was atrophy of the interossei muscles, causing the characteristic claw-like contraction of the fingers. A case now submitted to this Society was adjudged to be an instance of leprosy when the active disease had died out. The geographical extent of the disease is perhaps greater than that of any other like malady. It is not a great while since lepers were treated in England in the hospitals at Bath. It is thought that some of the peculiar cases of muscular atrophy now and then met with may be due to the remains of leprosy once prevailing in the island. Under one of the microscopes on the table was shown the specific parasites of leprosy grouped in a collection of nine bacilli in the reticular portions of the corium. Leprosy is now deemed contagious, even animals that flock around leper hospitals—mice, pigeons, poultry—have been affected by it, and now it is thought that Father Conradi, colleague of the late Father Damien in the leper settlement of Molokai, is suffering from leprosy.

As the members of this society separated, they were met by the members of another society filing in.

One evening, at the meeting of the Ophthalmological Society of the United Kingdom, Jos. Hulke, a heavy, sleepy-looking man, with the general appearance of a German metaphysician, occupied the chair. His remarks were few and opportune. In the most quiet way that was possible, like a voice from the oracle in the temple, he would say that which bore no contradiction and illumed the subject under discussion in the happiest manner. On this occasion a gentleman from Hull read notes of a case of a girl aged eight years in whom the right eye had no perception of light. There was not only acute iritis, but the iris was studded with nodules varying in size, their apices yellowish, their bases surrounded by bright red vessels. No hypopyon, cornea clear, eyeball not tender. Three weeks later the nodules in the iris increased in size and two ciliary staphylomata had appeared. Two months subsequently the staphylomata had disappeared, leaving the iris disorganized. On section of the eye, which was removed six months after the first visit, there was found to be total posterior synechia, with thickening of iris and ciliary body, degeneration of lens, and detachment of retina. The disease was thought to be an inflammatory neoplasm rather than tubercular or syphilitic gummata. Microscopically, Dr. Brailey, who made the examination, considered it to be one of irido-cyclo-choroiditis of a peculiar nature, with many of the features met with in sympathetic inflammation. There was no history of injury. The family and personal histories were exceptionally good. No bacteriological examination was made. A case of cavernous angioma of the orbit was reported by a gentleman from Manchester. It came under observation in 1884. The patient was a girl aged eighteen years, who had protrusion of the left eyeball, which for nine years had been slowly increasing in size. There was no pulsation, no fluctuation, no pain. Optic nerve pale. V=14 J. On July 17 the globe was enucleated, and a cone-shaped tumor, in which the optic nerve was found imbedded, was scooped out from its capsule. Viewed by the microscope it presented an open, sponge-like framework of fibrous tissue with numerous round sinuous, irregular cavities. A case of Mr. Critchell's was referred to, where the proptrused eyeball could be pressed backwards into its normal position. Two instances of sarcoma of the ciliary body were related by a gentleman from Sheffield. In one, where there was a dark brownish speck in the upper and inner ciliary region the size of a small pea, without any pain or loss of vision, and the other with some opacity of the lens and increasing dimness of sight of the right eye. In the first case enucleation was performed, in the second the eye was excised; five years afterwards the latter showed no evidence of recurrent growth.

Among the microscopical preparations shown was sub-conjunctival cysticercus in fragments, as well as some other preparations of interest to oculists.

Being the general annual meeting, the proceedins were of unusual interest. During the election, which was merely one of those formal affairs that gives legal sanction to a ticket already chosen, an opportunity was offered for studying men in another light from the customary one. Here were gentlemen who, in professional parlance, could say but little, now delighted their hearers with their eloquence and graceful diction. Having elected new officers they passed into an ante-room, where coffee and refreshments were served. Here was perfect *entente cordiale*—

> "Like dogs that snarl about a bone
> And play together when they've none."

Tired of hospitals, of London societies, of pharmacien proud empiricists, of pathologic prestigiators, of experimentations, horripilations and medical polemics, Bull's Eye gladly accompanied Mr. Adams Frost and part of the council to his *Cabinet d' Etude*, to smoke with the librarian the calumet of peace and there drink port wine and the irrepressible Salutaris water. Mr. Adams Frost—two names that might strike one as being contemporary in the early stages of the world—is by no means ancient looking. He is well formed, having good eyes and pleasing countenance, with a well-formed head, the organs of benevolence and veneration being fully uncovered. He is always doing something. He is a persistent, thoughtful worker, from whom the world is ever likely to hear. He is well known as oculist to St. George's, as well as to the Westminster Ophthalmic Hospital, and as an author in association with Mr. Henry Juler, his brother-in-law, and Mr. Brudenell Carter, his colleague. Mr. Adams Frost is as bright as a gold dollar and just as pleasant to have about one as a friend, with the most "feel at home, gentlemen," manner as a host that one could desire. After a most agreeable conversation *de. omnibus rebus et quibusdam aliis*, we "skedaddled" each to his own tent. "BULL'S EYE."

SALT AND MICROBES.—A foreign observer has carried out some instructive researches into the effect of salt on various pathogenic micro-organisms. He found that the results varied a good deal according to the particular microbe experimented upon. The cholera bacillus, for example, curled up and died in a few hours, while the bacillus of typhoid fever and the micrococci of pus and erysipelas resisted its influence for weeks and even months. That part of his observations bearing on tuberculosis possesses a practical importance, owing to the custom in slaughter-houses of salting the flesh of animals recognized to be tuberculous, and exposing it for sale in the course of a few weeks. M. de Freytag has shown that the tubercle bacillus thrives in presence of an excess of salt, and salting the tuberculous tissues of an ox in no wise prevented the infection of animals fed thereon. Hence it is highly desirable that a stop should be put to a practice which exposes those who partake of the diseased meat to such obvious risks of infection.—*Med. Press and Circular.*

Society Reports.

ACADEMY OF MEDICINE.

OFFICIAL REPORT.

Meeting, November 4, 1889.

The President, WM. JUDKINS, M.D., in the Chair.

G. A. FACKLER, M.D., Secretary.

DR. RYAN desired to report a case of

Spina Bifida.

He had seen the child for the first time three or four months ago. It was nine months old, and the youngest of fourteen children. The mother was healthy and the father apparently so. The other children were also healthy. At its birth attention was attracted to a tumor in the lumbar region of the patient. It was the size of an orange, and translucent. When seen by the speaker no nerve fibres could be detected in its centre or border. No portion of the cord was visible, so far as could be ascertained by translucency. The child was small for its age, not well nourished, and peevish.

The management of the case consisted of simple compression for four or five weeks, without apparent effect. Dr. Evans aspirated the fluid twice, but the sac refilled within thirty-six hours. When seen about two weeks ago the general condition of the patient was poor, and the tumor seemed to be growing. At the time it appeared that some chance might be offered by an operation, but it was not thought possible that the child could stand the shock. General tonic treatment, including oil inunctions, was adopted, with the view of improving the general condition. About one week ago Dr. Evans was called and found a small slough of the skin, having the appearance of a little blister, which opened. The child was seen by the speaker yesterday. Temperature was 105°. The patient was conscious, had nursed well, was not peevish, and fluid was oozing through the puncture. The case had advanced too far for operative procedure, and death ensued to-day, the child retaining consciousness to the end and having no convulsions.

This case is interesting in the light of the successful results obtained of late by operative procedure. We are now warranted to do more than was done by the older surgeons. The common treatment has been puncture and compression, with the almost invariable refilling of the sac. This was occasionally varied with iodine injections. The idea also prevailed that if the sac be completely emptied danger might result. Hence it was the plan, at one time, to take out about two-thirds of the contents, keep them warm, and reinject with the addition of iodine.

Very few cases of spina bifida have been operated upon successfully. Within the last three months a number of successes have been reported. By reason of the absence of the cord or nerve fibres from the sac, and the probability of a small opening between the spinous processes, this child would have been a favorable subject for an operation, if its poor general condition had not warranted the belief that it could not survive the shock. When the cord enters the sac an operation should be looked upon with little favor. While these cases are not very common, yet every practitioner has probably seen one or two, and most likely looks upon them as hopeless, and death the most desirable end.

DR. THORPE reported a case that had come under her observation. The tumor was translucent, and contained apparently no portion of the cord or nerve fibres. The contents were withdrawn, iodine injected, and a perfect cure resulted. The child was otherwise in a healthy condition.

Pilocarpine in Bright's Disease.

DR. CLEVELAND wished to report two interesting cases.

One illustrated the effects of pilocarpine in Bright's disease. Some years ago he had employed the remedy in the treatment of albuminuria, but its effects were so pronounced and depressing that he had discontinued its use until about six months ago. Last spring he had under observation a case of chronic Bright's disease associated with some valvular disease of the heart. Various remedies were employed, but the patient grew steadily worse, the œdema being extreme. A large amount of ascitic fluid was present in the abdominal cavity. Respiration became labored, and the case began to appear desperate. The speaker then determined to use pilocarpine, and commenced with doses of one-sixth of a grain by hypodermic injection. This was followed by an immediate good result. Perspiration was profuse. Before this it was almost impossible to produce any effect upon the kidney. Very small quantities of urine had been voided, even when other ordinary diuretics were exhibited. But as soon as the pilocarpine was administered the flow of urine became large and satisfactory. The œdema and ascites disappeared. The speaker was astonished at the improvement. He used the injections daily for two weeks, as much as one-fourth of a grain, and the patient recovered. He did not pretend to claim complete recovery, since traces of albumen still remain. But the improvement is so marked that the patient is able to attend to and pursue his business.

The speaker is using pilocarpine in another case at the present time. The condition is of longer standing and the patient more feeble. The ascites is of longer duration, having existed eight weeks before pilocarpine was resorted to. The patient was so feeble as to be confined to bed. The amount of albumen in the urine was large, and tube casts were detected upon microscopic examination. Hypodermic injections of one eighth of a grain of pilocarpine were administered, and while the effects were not so marked as in the first case, yet they were beneficial. The speaker has found that the remedy may be administered continuously for a long time without bad effects. In the second case he had commenced with one-eighth of a grain, gradually increasing the dose to one-fourth, giving one injection every twenty-four hours for a period of forty days, and is now giving one every second or third day. The general ascites and œdema have greatly diminished. The peculiar advantageous effects upon the kidney itself was observed in both cases.

In chronic parenchymatous nephritis the amount of urine passed is generally small, and it is found difficult to increase this or to induce free perspiration.

The hypodermic injection is to be preferred to the internal administration of pilocarpine, since in this disease the digestive apparatus is usually in such a condition as to make it desirable to keep all medicines out of the stomach.

New Subscribers to the LANCET-CLINIC can begin at any time during the year.

Selected.

THE TORSION OF ARTERIES FOR THE ARREST OF HEMORRHAGE.

By J. B. MURDOCH, M.D.,
Pittsburgh, Pa.

[*Fort Wayne Journal of the Medical Sciences.*]

Upon no subject has our profession been more conservative than upon the manner of arresting hemorrhage after wounds of the arteries and veins. Since the time of Celsus, notwithstanding the numerous methods which have been proposed for this purpose, but two, viz., the actual cautery and the ligature, have received the endorsement of the profession. But if the profession has been slow to endorse new methods, its confidence once gained has not been easily shaken.

This could be illustrated by the tenacity with which the surgeons adhered to the use of the actual cautery after the discovery of the ligature.

The effort made by Sir James Y. Simpson, of Edinburgh, to substitute acupressure; and the still more recent endeavor of Dr. S. F. Spier, of Brooklyn, to substitute constriction, for ligation, have most signally failed.

The same statement may be made also in regard to torsion as a means of arresting arterial hemorrhage. It has not received the support of the profession to any great extent, but, unlike the other rivals of the ligature, it has had champions for hundreds of years, and still holds a place as a valuable means of arresting hemorrhage. The subject has received but little attention from modern surgeons.

The twisting of an artery to arrest bleeding is of ancient origin. It is spoken of by Celsus. The fact, often observed, that an arm or a leg may be torn from the body with the loss of only a few drops of blood, no doubt suggested the method. It has been advocated by such surgeons as Amussat, Dieffenbach, Schroeder, and Syme. But the credit of bringing it prominently before the profession and establishing its efficiency is, no doubt, due to Mr. Bryant, the present distinguished surgeon of Guy's Hospital, London. At this Hospital, as I am credibly informed, the ligature is seldom used, torsion being chiefly relied upon. Mr. Bryant tells us in the last edition of his surgery, that in two hundred consecutive amputations of the thigh, leg, arm, and forearm, all of the arteries were twisted. One hundred and ten being the femoral artery, and that in no case was there secondary hemorrhage.

Mr. Bryant says: "The physiological arguments in favor of torsion are very great, and the practical advantages seem to be no less. After seven years' experience in its practice applied to vessels of all sizes, the femoral being the largest, I have had no mishap.

"I have observed that wounds have united more rapidly and kindly, primary union being the rule. There has been less constitutional disturbance after operation, and consequently less liability to traumatic fever, pyæmia, and other complications, such as we are all too familiar with in the practice of surgery. I have had stumps heal in a week, and up in two weeks without one single drawback, rapid and uninterrupted convalescence following the operation."

Having given this experience of Mr. Bryant at Guy's Hospital, I desire now to give my own as observed at the Western Pennsylvania Hospital in Pittsburgh. At this hospital torsion is almost exclusively relied upon to check the hemorrhage from wounded arteries or veins, whether the wound be produced by the surgeon's knife or in some other way.

My experience with torsion as a hemostatic dates back to the year 1872, when I became a member of the hospital staff. My colleagues had, previous to my connection with the hospital, been twisting arteries as large as the radial and ulnar. The facility with which this was done, and the fact that the wounds healed kindly and that secondary hemorrhage did not follow, induced me to follow their example, at first timidly, but with success came confidence. Having been successful in the amputation of a forearm with no untoward result, I ventured next to twist the brachial after the amputation of an arm, soon after this the axillary, and then the popliteal, and finally the femoral. And now for the past fourteen years torsion for the arrest of hemorrhage after all surgical operations has been the recognized, and almost only, method resorted to at this hospital.

It is to be regretted that records have not been kept of the number of large arteries which have been twisted to arrest the hemorrhage, but the following table is given with entire confidence of accuracy. It is made from the records of the amputations.

Table showing the number of arteries divided in cases of amputation where torsion has been resorted to for the arrest of hemorrhage at the Western Pennsylvania Hospital:

Femoral, . . .	95	times.
Popliteal, . .	14	"
Axillary, . . .	15	"
Anterior tibial, .	276	"
Posterior, . . .	276	"
Brachial, . .	62	"
Radial, ...	40	"
Ulnar, . . .	40	"
Total, . . .	818	times.

The manner in which the torsion was applied in these cases is the same as described by Mr. Bryant in his surgery. "A good pair of forceps is required that will hold the end of the artery firmly, that has no lateral motion, and with serrations blunt enough to obviate any laceration or cutting of the parts seized by the blades. The vessels should then be drawn out, as in the application of the ligature, and three or four sharp rotations of the forceps made.

"In large arteries, such as the femoral, the rotation should be repeated till the sense of the resistance has ceased. The ends should not be twisted off. In small arteries the number of rotations is of no importance, and their ends may be twisted off or not, as may be preferred."

In all the cases mentioned in the above table, torsion of the arteries and veins was the method resorted to to control hemorrhage. In addition to these cases of which we have a record, the method of torsion has been the one resorted to in all surgical operations performed during this period, such as amputation of the female breast, the removal of tumors, the excision of joints, etc. It is within bounds to say that torsion has been resorted to in thousands of cases at this hospital without any mishap. We have had no case of secondary hemorrhage which could fairly be attributed to the method of controlling the hemorrhage. The advantages of torsion as compared with ligation are:

I. The greater facility with which it can be applied.

I am fully aware that this proposition is disputed, but to those who are familiar with both methods there can be no doubt that torsion is the easier of the two.

For the ligation of an artery an assistant is required to seize the vessel and draw it out while the ligature is applied. For torsion the surgeon requires no assistant. The vessel must be seized with the forceps in either case. In torsion it requires only three or four turns of the forceps to complete the process, which can be accomplished in as many seconds. When a ligature is applied, let the operator be ever so skilful, the thread may break or slip off the vessel; but if neither of these accidents occur, the process cannot be accomplished in anything like the same time.

II. Torsion is a safer method, being less liable to be followed by secondary hemorrhage.

This proposition has been absolutely proven by the experience in the use of torsion at Guy's Hospital, and I have now given additional proof by the experience given in this paper at the Western Pennsylvania Hospital.

III. Healing is facilitated because the wound is free from any irritating or foreign bodies.

This proposition is so plain that it should not require any argument.

It was true before the antiseptic treatment of wounds had come into such general use, but is doubly so now. The catgut ligature no doubt is a safer ligature than silk, for it does not require an ulcerative process for its discharge, and when this ligature has been made thoroughly antiseptic is no doubt the best. But a ligature rendered thoroughly antiseptic is not always at hand, and those surgeons who have had most experience with the antiseptic treatment of wounds will, I think, be the first to admit that, in spite of their most careful attention, septic germs are often introduced into the wounds by means of the ligature. Even after every precaution in preparation and preservation the handling of the ligature in its application is a frequent source of infection.

But there are other objections for its use; a catgut ligature may dissolve before the artery has become closed by the natural hæmostatic process, or it may unbind. Both of these accidents have been frequent cause of secondary hemorrhage.

On a recent visit to some of the principal hospitals in New York City, where the operators and assistants possessed the greatest skill, I was not surprised to see that in many instances the ligatures broke, and in other instances slipped off the vessels before they were secured. This was to me exceedingly annoying to witness, when I knew that the vessels could have been so easily twisted while they were in the grasp of the forceps. When the question was asked one of the operators, a distinguished surgeon, "*Why do you not resort to torsion?*" the reply was, "*We are afraid to trust it.*" This answer might have been given with equal force by Richard Wiseman in the seventeenth century when asked why he did not resort to ligature instead of the red-hot iron.

In a matter so important as the arrest of arterial hemorrhage it is proper that surgeons should be conservative, but there is such a thing as pushing conservatism too far. In the torsion of arteries I claim we have an improvement upon ligation, its claims for recognition rest on physiological arguments which cannot be shaken, and its reliability as a hæmostatic has been proven by abundant experience.

SUBCUTANEOUS INJECTIONS IN SYPHILIS.—Dr. Hebra was engaged in continuing his experience on this subject at the polyklinik this week. The drawbacks of a mercurial solution was the care necessary to keep a solution from becoming turbid. To overcome this difficulty Bamberger preferred a preparation in an albuminate solution or combined with peptones. The albuminate could be kept fourteen days before any cloudiness appears, while the peptonate was preserved longer. These gave little or no pain, acted promptly, but the effects were of shorter duration—ten or twelve weeks according to Bockhart. Dr. Hebra speaks very highly of the effects of these two drugs, but thinks the price of them a great blemish in a poor institution. But that which gives the least local irritation is Bockhart's preparation of serum, albumen, and mercury. This solution keeps longer, acts quicker, and gives least pain, while each injection contains 0·01 drachm of sublimate, and requires fifteen to thirty injections for success, a number greater than the sodium-chloride sublimate solution. In a few cases he has seen stomatitis with this solution. Liebreich, Wolff and Hebra's preparation with the formamids and glycocides are still more active and remain shorter in the body after use than any of the former — only six weeks. But there is great danger to the internal organs by this rapid action. The salicylate of mercury solution is too weak for being of any use. It is now twenty-five years since Scarenzio introduced these injections by using glycerine with 0·01 grain mercury, which treatment is now on the increase. It is undoubtedly the speediest mode of treatment, not exceeding two, three, or even one week. The disadvantage against its use is the pain, but this is reduced to a minimum by many of the solutions. The pain usually lasts twenty-four hours after the injection till the fourth day, when the pain disappears. Another alleged disadvantage is the local abscess, but this has not occurred to me in a single case out of 16,000. But this is not the cases with all. Breslau has four per cent. in abscess, Bender gives twenty-nine per cent., while other kliniks are different. Stomatitis mercurialis is another disadvantage—Breslau's klinik six per cent., Bonn twenty-nine per cent., but these are numbers greater than in Vienna. The affecting of the bowel is rare, but Kruno relates one case where 0.1 grain calomel produced dysentery and peritonitis, with subsequent death.—*Vienna Corr. Med. Press and Circular.*

Asepsis for Midwives.—The untoward results which occasionally follow the injudicious use of antiseptics by nurses and midwives has led to an effort being made at Paris to prohibit their use by the latter except under medical supervision. M. Brouardel, however, protested against any such interference on the ground that the accidents due to misuse of antiseptics cannot compare with those caused by the want of them, and he opines that rather than prevent midwives using antiseptics it would be better to suppress the midwives altogether. What is really wanted is to teach midwives the imperative necessity for "surgical cleanliness"; *asepsis* is the object to be aimed at, and not antisepsis. Prevention is possible, while cure, in such matters, is rarely so.—*Medical Press and Circular.*

SUCCESSFUL EXPERIMENTAL TRANSMISSION OF CARCINOMA.

[*The Medical Chronicle.*]

Notwithstanding the wonderful power of metastasis possessed by cancer, from Langenbeck to Doutrelpont, Köster, Schottelius and v. Kahlden, no attempt at the experimental transmission of carcinoma has had a decidedly certain result. In favorable cases a trifling local growth was all that was attained, or results seemingly positive, disappeared under minuter criticism.

Only two experimenters, Novinsky, and recently, Wehr, have had results that can bear close inspection. Both were successful in producing, not only local growths, but also metastatic tumors. They experimented on dogs, grafting from dog to dog subcutaneously. Hanau (*Forlschritte der Medecin, May* 1, 1889) employs rats in his experiments. The rat he got his grafts from suffered from carcinoma of the vulva, with metastases in the inguinal glands on both sides, and in one of the axillary glands on the right side. Under the microscope the appearance of the tumors was decidedly cancerous. Two tiny portions were snipped out of the centre of a gland, not as yet begun to ulcerate, and inserted by a forceps through in each case a minute scissors' slit, beneath the scrotal integuments of two old male rats, the wounds being carefully closed by catgut sutures. One of the rats died on January 14, 1889, and an elaborate post-mortem was made on it. An external examination showed nothing, the cicatrix even, at the spot of grafting, had vanished. Internally there was a plentiful growth of cancerous masses. The right vas deferens had its quasi-omentum studded with small transparent cancer nodules, varying in size from a pin's head to a half millet seed. The greater omentum was much thickened and transformed into a mass of knots. These knots, under the microscope, were characteristically cancerous, and identical in structure with the cancerous graft.

The second rat was killed on the 28th. On the 26th it seemed in good health, but a round ulcer, covered by a dry scab, and about one cm. in diameter, had destroyed the right half of the prepuce and surrounding skin. The graft cicatrix showed no change, but in the right half of the scrotum under the testicle was a solid, movable tumor, rounded, and half as large as the testicle. This last, on section, was found to be connected with the epididymis, and under the microscope presented the appearance of cancerous masses embedded in a foreign tissue, and having on their upper surface the structure of a papilloma covered with a layer of hardened epithelial cells. A smaller tumor, found near the penis, in the border of the round ulcer already referred to, presented the well-known appearance of a hard wart becoming carcinomatous (as in the lip). All the other parts of the animal, including the peritoneum, were free from nodules. The animal was well nourished and fat.

Hanau next meets possible objections. The anatomical diagnosis of flat, epithelial cancer in both of his subjects can scarcely be disputed; the typical naked-eye characters—the microscopic structure—the penetrating into foreign tissues, etc.—are all clear evidence of correct diagnosis. The supposition that the abdominal tumors were spontaneous alveolar tumors is, on on the face of it, untenable, as the cells of the tumors showed that they originated in the squamous epithelium of the skin or a mucous surface. Finally, the size of the tumors proved that they were not the original grafts, and a thorough search proved that the metastatic tumors were not the product of a primary spontaneous "cancroid" of the same animal.

If one considers the histological identity of the graft and the tumor resulting from the graft, the appearance of peritoneal carcinoma and of cancer of the abdominal lymph glands after transplantation into the abdominal cavity, the growth of tumors on the spot where the graft (in the second case) was deposited, the conclusion must be that cancer can be transferred by grafting.

The ten pages that follow are exceedingly interesting as bearing on the nature of cancer. Cancer is *not infectious*, inasmuch as it is *spread by a living cell*. The metastatic progeny of a tumor has the same structure as the parent tumor; while growths, *e.g.*, tubercle, due to germs, differ according to the tissue they are found in. No micro-organism can convert the cells of all tissues alike into scaly epithelium. Even in the case of a secondary epithelial tumor in an epithelial tissue, it is by no means proved that the tissue epithelial cells ally themselves with the tumor cells; in fact, the epithelial cells of the tissue invaded retrogress rather than advance.

A cancer can be formed, at the commencement, by epithelial cells alone, without any help from foreign tissue stroma. A primary cancer, by making crevices and filling them with stroma, in the shape of vessels, as Langhans has shown, can build its own framework; whilst a secondary cancer, as it grows, fills any preformed cavities it can find, *e.g.*, lymph and blood passages. But epithelial cells, Hanau attempts to prove, have a "formative influence" on the tissues, *e.g.*, the growth of the papillæ is governed by their epithelial coat, and granulations uncovered by epithelial scales, cicatrize and shrivel, whilst covered by a layer of epithelial cells, they remain flat and smooth. Epithelial cells may thus, somehow, influence the original stroma of the tissue in which the cancer grows.

Why have so many experimenters in times past failed? From technical errors; better methods giving better results.

In conclusion, he mentions that, three years ago, he tried, by means of pitch, paraffin, etc., to produce in rats cancer of the scrotum, but failed, probably, he thinks, because the preparations he used were too weak, or the treatment not sufficiently protracted. Spontaneous cancer in rats, he considers, is, to some extent, caused by soiling of the scrotum and similar parts by excrement.

THE DETECTION OF ARSENIC IN THE BONES.—Medico-legal investigations, having for object the detection of arsenic, generally bear on the stomach and liver, and, given the importance of the subject, some observations recently published in the *Revue Scientifique* bearing thereon possess an interest of their own. M. Pouchet has shown, by a series of carefully conducted experiments, that however administered during life, the poison accumulates in the spongy tissue of the bones, more particularly in the cranium and vertebræ. It may be detected there long after all trace has disappeared from the viscera. This localization is specially well marked when the administration of the poison has been spread over a long period. When, on the contrary, the dose has been such as to determine a fatal result within a few hours, it should be sought for preferably in bones largely composed of compact tissue. Thus stored up, the poison is eliminated with extreme slowness, and may be isolated eight or ten weeks after the administration of the poison has been discontinued, whereas in the viscera only negative results are obtainable even as early as the third or fourth week. The tendency of arsenic to replace the phosphorus in bones has long been recognized, but it remained for M. Pouchet to call attention to the slowness with which the bones give up their accumulations, a point of great importance from a medico-legal point of view.—*Med. Press and Circular.*

Catheterism of the Ureters by Means of the Cystoscope.—Professor Sappey (*La Presse Médicale*, September 22, 1889) has brought before the Académie de Sciences de Paris a work of M. Poirier on this subject, which will probably render great service in the diagnosis of diseases of the kidney, especially as regards a unilateral affection, such as tumor. The essential condition of success in the operations which modern surgery undertakes on a kidney is that the opposite one should be really healthy. It is, therefore, of paramount importance, before commencing an ablation of a diseased kidney, to determine the condition and functional activity of its fellow. Unfortunately this is most difficult, the indication furnished by exploration and the study of the physical signs being still insufficient. The best proceeding, therefore, is to draw off and analyze the separate products of the secretion of each kidney. This can be done with ease by illuminating the interior of the bladder by means of Nitze's cystoscope, or that of Boisseau and Rocher (which has a much larger field), and then searching for the openings of the ureters. Once found, a small sound, conducted through a special channel in the cystoscope, can be readily passed into them. Thus surgery is now in possession of the easy means it has hitherto wanted to dissociate the secretion of the two kidneys. It is evident, too, that this instrument, by dilating the terminal parts of the ureters, can facilitate the expulsion into the bladder of renal calculi.—*Med. Chronicle.*

BINDING.—Send us your unbound volumes of the Lancet-Clinic and *Obstetric Gazette* to be substantially bound.

EXPERIMENTAL CONTRIBUTIONS TO THE QUESTION OF THE INFECTIOUSNESS OF THE MILK OF TUBERCULOUS COWS.

[*Medical Chronicle.*]

Twenty-five per cent. of all children dying under one year of age, says Dr. Hirschberger (*Deutsches Archiv für klinische Medecin*, Band xliv, Heft 5 and 6), die of tuberculosis, and is is reasonable to connect this fact with the amount of tuberculosis in cows. The belief that the milk of tuberculous cows is a source of infection for man rests partly on theoretical considerations, and partly on observed facts, such as that swine, goats, cats, and rabbits fed on such milk have contracted an unmistakably food tuberculosis. Whilst some believe that danger is present only when the udder is tuberculous, others believe that this condition is not necessary. To determine this point, it is not sufficient to have recourse to feeding experiments, since the juices of the digestive tract may act destructively on the infection present. The microscopic search is also insufficient, since not only may the bacilli be very few and difficult to find, but the infection may be present in the form of spores. It is thus necessary to have recourse to subcutaneous or intraperitoneal inoculation of guinea-pigs. Such experiments, with milk, have been made by Ferdinand May, Bang and Gottlieb Stein. The material thus obtained seeming insufficient to allow of positive conclusions, Dr. Hirschberger, under the guidance of Professor Bollinger, has carried out a larger series of experiments. Two questions seemed above all to demand an answer.

(1) Are the cases in which cows with pearl disease give an infectious milk frequent or rare?

(2) In what forms of pearl disease is the milk infectious; in cases only where the tuberculosis is generalized, or in localized tuberculosis as well?

The milk required for the experiments was obtained from the public slaughterhouse. To obtain the requisite quantity of milk the following method was pursued. The whole udder of a cow, just slaughtered, and found to be tuberculous, was carefully packed up and sent to the Pathological Institute, a short notice in every instance accompanying it from a veterinary surgeon, describing the age and general condition of the animal, as well as the form and degree of extension of the tuberculous process in the organs. In some cases, before slaughter, the milk of cows suspected to be tuberculous was obtained by milking and transported in glass vessels cleaned by boiling before use.

The udders were generally used the same day. Under strict antiseptic conditions, a cross-cut, two or three fingers broad and near the nipple, was made with a knife, invariably previously sterilized in the flame. From the milk ducts thus cut across and gaping, so much milk was then drawn by means of a syringe—similar to Pravaz's—as could be obtained by gentle squeezing on both sides of the udder. The syringe was then forthwith employed.

It should be mentioned that only milk of good appearance and free from admixture with blood was used. On every occasion, before use, the injection syringe was taken to pieces, and placed for a considerable time in boiling water. After injection it was first cleaned with water, then a solution of corrosive sublimate, about one per cent., was squirted through it eight to ten times, and the sublimate, then left, removed by washing with alcohol and water. The hands were also carefully disinfected before the manipulations.

As experimental animals only guinea-pigs were employed. The milk was usually injected into the free abdominal cavity, since here the phenomena of inoculation tuberculosis are very characteristic, and it is scarcely possible to confuse it with spontaneous disease.

The needle of the injection syringe was introduced slantwise into the middle of the abdominal cavity; then it was sought to reach the free peritoneal cavity, without penetrating the bowel. If it was suspected that this had happened, the canula was pulled back. In consequence of this, in some instances it appeared, by the subsequent development of cheesy masses, that the contents of the syringe had been injected, not into the free cavity, but into the abdominal muscles. The guinea-pigs used were always young animals, and fresh on the market. After inoculation they were usually placed two and two in little wooden stalls, with about six square feet of ground space. These were frequently thoroughly cleaned.

Then follows a record of the experiments, but it seems needless to give these one by one. It is only necessary to state that the guinea-pigs, killed at various intervals after inoculation, were subjected to a thorough examination, and that the diagnosis of induced tuberculosis was formed on the usual appearances in guinea-pigs, omentitis tuberculosa, enlarged tuberculous spleen, etc. Diagnosis of the disease was possible during life, owing to the enlargement of the inguinal glands, which, in this animal, with intra-peritoneal injections, is a prominent symptom.

It is noticeable that, although this is one of the important points under consideration, the condition of the udder itself is mentioned only in three of the experiments, Nos. 1, 6, and 8. In all these cases it is stated to have been healthy, and in all three the injected milk produced tuberculosis.

In summing up the results of his experiments, the author observes that the post-mortem examination of the guinea-pigs was in all cases submitted to Bollinger. He was himself surprised at the number of positive results. Not a single guinea-pig died of sepsis, a remarkable occurrence, due partly to the careful antiseptic precautions taken, and partly to the excellent condition of the stalls.

In the guinea-pigs which contracted tuberculosis there was found in most instances a generalized tuberculosis of the peritoneum, of the large omentum, of the spleen, the liver, etc., exactly such as has been described by May.

In other cases, in which the injections had been into the abdominal walls, the path of the infection could be exactly followed. In the neighborhood of the puncture there were constantly cheesy abscesses or ulcers, whose tuberculous nature, when not demonstrable by tubercle bacilli, were proved by caseation of the adjacent lymph glands, and by the fact that the spleen, liver, lungs, and kidneys showed a quite characteristic tuberculosis.

As regards the presence of tuberculous infection in the milk, it may be presumed that, as shown in the case of other micro-organisms, the bacilli or spores of tubercle are excreted by the kidneys and by the milk.

It is noteworthy that out of the twenty udders used, in only one was the presence of tubercle bacilli demonstrated microscopically, a proof that no reliance can be placed on this mode of examination, so far as the exculpation of a suspected milk is concerned. Further, *the danger of infection from the milk of a cow affected with pearl disease does not only exist, but is very great. The experiments detailed above show also that this is the case even when the tuberculosis of the cow is not generalized, and when the udder is not affected.*

This will be gleaned also from the following summary of the experimental results:

The milk used was in five instances from cows described as highly tuberculous, and in which the tuberculosis extended to nearly every organ; in six, from cows diseased to a moderate extent; in nine, from animals only slightly affected, in which the tuberculosis was confined to the lungs.

From the five severe cases inoculation gave, in four a positive, in one a negative result.

From the six moderate cases inoculation gave, in four a positive, in two a negative result.

From the nine slight cases inoculation gave, in three a positive, in six a negative result.

The milk is therefore infectious in slight cases, and where the tuberculosis is localized. It is true that in six cases no infection was present. But it does not follow that in these animals it was always absent from the milk. It is probable that in all the nine slight cases, infection would be now absent, now present in the milk, according to the degree of activity of the local process in the lung.

As regards the condition of the cows, the facts are these:

From four badly nourished cows inoculation gave, in all, positive results.

From seven, moderately nourished, inoculation gave, in three, positive results.

From seven, in good condition, inoculation gave, in three, positive results.

It follows, therefore, that, though the danger is greater from badly nourished cows, it is still great from well nourished cows affected with tuberculosis.

It does not, of course, follow that every one who swallows the tubercular infection is to contract tuberculosis. Immunity will depend partly on the soundness of the digestive organs, and partly on the vigor of the eliminating organs. *But these experiments conclusively prove the great danger attending the consumption of milk from tuberculous animals, in whatever condition these may be.*

HYPOCHONDRIA AND HYSTERIA IN MEN AND WOMEN. — Paget and other authorities have pointed out that hypochondria is much commoner in men than in women. Some physicians are too ready to believe that this aphorism implies a precise homology between hysteria and hypochondria, the former being, so to speak, the form which the latter assumes in woman. Yet few can deny that men are sometimes attacked with a disease bearing all the general symptoms of hysteria. A man may have hysterical fits, or may show chronic hysteria, becoming bedridden or fancying that a joint is stiff or inflamed. German and Russian authorities have discovered that true hysteria in man is frequent, not in over-civilized countries but among semi-civilized nations, such as the Circassians and Persians. Dr. Mendel has recently written a paper in the *Deutsche med. Wochenschrift* on "Hypochondria in the Female Sex." He maintains its distinction from hysteria. He distinguishes three forms which he has observed in women. The first is characterized by great fear of death or of some disease to which the patient is not subject, without moral or physical timidity or cowardice in any other respect. This form, common in men, is rare in women. In the second type, much more frequent in the female, the patient believes that some particular organ is already diseased, and really feels pain in the affected or suspected part. In the third, also common in woman, the phenomena of the se ond type are present, with disorder of the special senses and common sensation. Hypochondria diminishes during pregnancy and increases after childbirth. Dr. Mendel further dwells on the distinction between hysteria and hypochondria. The former begins, as a rule, about puberty; the latter appears later in life. In hypochondria clavus, globus hystericus, and localized anæsthesia, paralysis, etc., are not observed. A feeling of fear and anxiety is constant in hypochondria, and there is generally pain in the præcordia; the loss of hope is marked. These symptoms are unusual in hysteria. The troubles of a hypochondriac are stereotyped; in hysteria the patient fancies herself subject from time to time to a new disease or symptom. In hysteria the local symptoms of a disease are ably counterfeited, but the facial expression of suffering is best indicated in hypochondria. We all know how a young woman with hysterical spinal disease looks—well nourished and smiles and talks readily. In hypochondria in woman, as in so many men, the face is deep-lined, as though racked with pain and eat up by care.—*British Med. Journal.*

THE ACTIVE PRINCIPLES OF THE SEEDS OF ABRUS PRECATORIUS (JEQUIRITY). — Drs. Sidney Martin and Wolfenden have communicated to the Royal Society the results of an investigation into the action of one of the active principles of jequirity seeds. As is well known, a watery effusion of the seeds dropped into the eye causes severe inflammation of the conjunctiva, while, injected under the skin, it also causes great local irritation, and death in some hours. Both these actions were formerly ascribed to a bacillus, until Warden and Waddell demonstrated that they were dependent on a proteid body which they named "abrin." Dr. Martin has previously found that there are two proteids present—a globulin and an albumose. In the present paper the authors show that the physiological action of the globulin is the same as that of the watery extract of the seeds and as the abrin of Warden and Waddell. When applied to the eye or injected under the skin there is intense local irritation. The general action begins shortly after administration with a fall of temperature, but the first very evident symptoms are only seen after some hours, and consist in languor and dulness. These increase, breathing becomes more rapid, there is bloody diarrhœa, and death in about twenty-four hours. There is no suppuration locally, and the blood pressure is scarcely altered. Post mortem there are found petechiæ in the serous membranes and hemorrhagic gastro-enteritis. Exposure to a temperature 75° or 80° C. destroys the activity of the globulin. Dr. Martin has also investigated the action of the albuminose. The results are very much the same as in the case of the globulin. The symptoms are similar, and heating destroys its poisonous properties. In conclusion, the striking resemblance between jequirity and snake-poisoning is pointed out.—*British Med. Jouanal.*

TREATMENT OF ASTHMA BY LOBELINE.

[*British Med. Journal.*]

It is some considerable time since the ethereal tincture of lobelia inflata was recommended in the treatment of asthma. The drug, however, had only a passing popularity, owing to its disagreeable effects, such as the production of vomiting and diarrhœa, and in some cases stupor. A drug which has a tendency to effect the cerebral hemispheres seriously is obviously a dangerous one in cases of prolonged dyspnœa, in which its effect on the brain is likely to aggravate the pathological condition of the respiratory centre in the medulla. Dr. Silva Nunès, of Rio, in an interesting paper communicated to the Brazilian Congress of Medicine and Surgery held last year, attributes the emetic action of the tincture to the form of preparation; in other words, that the solvent separates from the plant an emetic principle, different from the principle beneficial in asthma, and which is usually considered as the alkaloid—lobeline. He states that lobeline does not produce, in medicinal doses, either nausea or vomiting. Its action is rapid and evanescent, like that of lobelia, and its elimination takes place very quickly. It may be prescribed in hypodermic injection, in pill, or to children in fruit syrup. The dose given by Dr. Nunès by the mouth varies greatly—namely, from five to forty centigrammes (from three-fourths of a grain to about six grains). No rule can, therefore, be laid down for dosage; some patients are relieved by the smaller dose, and so it is best to begin with a dose of three-fourths of a grain. In most of Dr. Nunès's cases, however, the dose had to be gradually increased until twenty and thirty centigrammes were given daily. The cases recorded are partly simple uncomplicated asthma, or bronchitic asthma; in some the asthma was associated with bronchitis. In recording results of the treatment of asthma, it would seem a mistake to speak of the paroxysms of dyspnœa occurring in bronchitis and emphysema as a form of asthma; such terms, indeed, as "bronchitic" asthma and "cardiac" asthma ought to be discarded from the medical vocabulary, and the term asthma limited to the spasmodic dyspnœa which is associated with various neuroses, and is itself a neurosis. From Dr. Nunès's record of cases, he seems to have obtained excellent results with lobeline in the treatment of spasmodic asthma and of bronchitic dyspnœa; he places his observations before the medical public with the view of obtaining a fair trial of the alkaloid. Cases of asthma appeared permanently relieved many months after taking the lobeline. In children, too, doses of one to five centigrammes (one-sixth to three-fourths of a grain) permanently relieved the dyspnœa of asthma. Taking into account the fact that lobeline does not produce nausea or vomiting in any serious physiological effect in the doses used by Dr. Nunès, it appears worthy of an extended trial in the treatment of asthma.

THE HYPOTHETICAL TREATMENT OF BACTERIA. — Prof. Semmola, of Naples, considers the hypothetical treatment of bacteria a new fashionable wave of excitement that becomes more absurd the closer it is examined. It is a kind of pharmacology that has for its basis destruction of a microbe that leaves us in doubt whether the drug or the microbe is the more dangerous specific, but Prof. Semmola is confident that all honest experimentalists will admit that the drug is the more dangerous. Forty years ago histological pathology had discovered specific diseases and that these required specific therapeutics! It is still admitted that the physico-chemical changes in the body bring about a pathological change, and that medicines counteract this by their physico-chemical action in the curative process. It is surely foolish, therefore, to believe that carbolic acid and sublimate solutions will cure all diseases, when we know how differently they act on the blood, secretions, etc.

The same fallacious reasoning prevails in the cases of diphtheria, cholera, and enteric fever. The germ is supposed to enter by the retro-pharyngeal surface, and the long application of Listerism has not proved to us that this treatment is a success. It may be urged that the products have entered the blood before treatment was properly commenced, but how often would treatment be in time, as the doctor is not called before the patient is ill. Prof. Semmola asks the microbia-therapeutic to compare his results with Bretonneau's or Trousseau's statistics of diphtheria. In the enteric fever cures, a solution of acidum ferricum is recommended as an anti-bactericide in the form of an injection, while it is admitted that the microbe dies at the commencement of the disease. Hypothetically, the injection of carbolic acid necessary to kill the microbe is a three per cent. solution, and if to be effectual no less than one litre of the carbolic solution must be used, which would contain twenty grammes. What about the life of the patient? To overcome this difficulty, the fashionable therapeutist is ready with a safe article; reduce, he says, the three per cent. solution to a one per cent! But of what value is it then when the experiments of the laboratory set forth a three per cent. as necessary? The whole is only a *mise en scene*, a sublime mystification.—*Med. Press and Circular.*

CHRONIC ARSENIC POISONING.—Brouardel and Pouchet report as follows to the Paris Academy of Medicine: The phenomena presented in cases of chronic poisoning by arsenic are divisible into four well marked stages, in which different organs are affected and in different ways. The digestive apparatus and its glands are first attacked; then the poison passes partly into the urine, after which it involves the thoracic and abdominal viscera, as the lungs, the liver, etc. Next, impelled by the eliminative force which is contending for the victim's life, it enters the more superficially lying tissues, and may be detected, long after its absorption, in the cutis vera, the scalp, epidermis, nails and hair. Its final place of refuge is the spongy portion of the bones, where, although forty days may have elapsed, it can still be identified, generally in the form of arsenite of lime.—*Druggists Circular.*

THE INFECTIVE PERIOD IN CONTAGIOUS DISEASES. — Dr. James Finlayson contributes to the *Glasgow Medical Journal* an article in which are collected the views of recent authorities on this subject. From the observations made, it seems that the infective period for scarlet fever is from seven to eight weeks; measles, three to four weeks; rötheln rather less; mumps varies from two to four weeks, and whooping-cough is usually put down to eight weeks or more. These investigations are, of course, of the highest importance.—*Druggists' Circular.*

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

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EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, November 23, 1889.

The Week.

CHRIST'S HOSPITAL.

This is a recently opened charity in the northwestern portion of our city, that is destined to be a real God-send to the poor of that district. For the present some large residences located on York street near Linn have been given by Mr. James Gamble for hospital use. These well-arranged buildings have been fitted up and furnished in a suitable and excellent manner for their new purpose and new occupants. The wards will not be crowded beyond their normal capacity. Nor do they bear any resemblance to the ordinary hospital ward, with its precise and extremely exact rows of cots, each of which is made up and clothed exactly like its neighbor. In contrast with which the wards in Christ's Hospital have all the visible appearances and surroundings of a well-kept private dwelling.

The superintendent is Rev. Dr. Weakley, a man bountifully provided with genuine, practical common sense. This altogether undescribable faculty, and somewhat rare commodity, is the very first requisite for a man in this position. In him the unfortunates who come under his immediate care will find a warm-hearted Christian gentleman, whose counsel will ever be wise and worthy of their fullest consideration and confidence.

Dr. Weakley is a man that the members of the medical profession will naturally take a liking to. Thoroughly educated and a good observer, he has a wholesome dislike of shams, whether in the guise of religion, pretenders in medicine, or in the matress and pillows of a hospital bed.

The attendants and nurses are a sisterhood of Protestant deaconesses, cultured women who have voluntarily sought this life in order to do the most good in the best way to those who are unable to care for themselves.

Dr. C. G. Comegys has been selected as medical director and adviser, which practically means president of the medical staff. A better selection could not have been made. Dr. Comegys has had a practical hospital connection for a third of a century, and has always kept himself fully abreast of the most advanced workers in our profession. Still vigorous in mind and body, with the heart of a youth, his last years will no doubt be crowned as his very best years, and largely given up to the fostering care of this institution. How beautiful it is to round out a busy life in such a manner! The opportunity is rarely given, and never more worthily bestowed than in this instance.

The staff is mainly made up of the vigorous young men of the profession, selected because of their learning, industry and professional character. We expect to hear of some professional work and skill exhibited that will be alike creditable to this staff of young men and to the hospital with which they are identified.

In connection with the hospital, a dispensary will be at once set in motion for walking cases. There will also be an externe service. This department will include the services of the sisters and medical staff, and will be a most valuable adjunct to the work of the hospital proper. In other words, it means a practical care and aid for the indigent in their own homes.

Nor is the purpose of the hospital or of its dispensary and externe service designed to be exclusively for the poor, but it will also provide accommodations, nursing and attendance for all classes who may be homeless, and at the same time able to contribute for their own maintenance and accommodations. All revenues derived from this source will be used entirely for the support of the charity.

It is purposed that the hospital, with its dispensary and externe service, shall be able at all times and seasons to meet any demand that may be made upon it by those who are suffering from any of the ills to which the flesh is liable.

As might be expected, as naturally as we know that by the force of gravity water runs down instead of up the hill, the medical director says: A clinical teaching department will be organized at the soonest possible time, and that Christ's Hospital will be made especially attractive to students and the young men of the medical profession. In fact, he seems to never have a thought of any kind for men who have for years and years practiced medicine in a perfunctory manner and in the same old rutty way, that was outlined in their note-books away back, when they helped polish the student benches.

The order of the Sisterhood of Deaconesses, instituted by the Methodist Church, and the creation of Christ's Hospital as their first home and field of work, is largely due to the munificent gifts of Mr. James Gamble, which are made secure for the purpose designed by the coöperation and governing auspices of the Methodist Episcopal Church. This large body of Christian people has taken up the enterprise with an affectionate zeal, that must forever characterize it as a beloved child of the church.

We cannot but think of the grandeur of this memorial stone, as compared with costly mausoleums placed over inanimate bodies in graveyards and cemeteries. Multitudes of people for generations to come will bless the names of James and Elizabeth Gamble.

SOCIETY NOTICES.

ACADEMY OF MEDICINE.—

November 25, DR. EDWIN RICKETTS will report a case of "Incision of the Gall-Bladder;" DR. R. W. STEWART will present a paper "Tait's Operation on the Perineum."

December 2, DR. J. J. KANE will read a paper on "Gunshot Wounds of the Hip-Joint."

CINCINNATI MEDICAL SOCIETY.—

Tuesday, November 26, DR. WM. H. TAYLOR will read a paper entitled "Relation of Forceps and Version in Contracted Pelvis." Discussion opened by Dr. Byron Stanton and Dr. C. A. L. Reed.

FOR SALE.—In western Ohio, property worth $1500, with practice worth from $1800 to $2500 annually. All for $1200. In a small railroad town of about 200 inhabitants. Best of gravel roads. All main roads are free pikes. Good reasons for selling. No opposition in practice. Address, J. K.,
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DR. C. T. MCKIBBEN, Moscow, O.
Or LANCET-CLINIC office.

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A fee of $5.00 will be charged for such examinations.
LEONARD FREEMAN, M.D.,
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OTIS L. CAMERON, M.D.,
OLIVER P. HOLT, M.D.,
Curators and Microscopists.

Are prepared to make examinations of river water, milk, etc., for the typhoid bacilli.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending Nov. 16, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	..	..	...	..	2	..	...	..	...
2nd	...	..	...	..	...	..	5	..	...	1	...
3rd	...	..	1	..	...	..	1	..	...	..	...
4th	...	..	1	..	...	..	3	..	...	..	...
5th	...	..	...	..	...	..	1	..	...	..	...
6th	...	..	...	..	...	1	1	..	...	..	...
7th	...	..	...	..	...	..	2	..	...	..	...
8th	2	..	...	..	...	..	...	..	...	..	...
9th	1	..	...	..	...	..	2	..	...	..	...
10th	...	..	...	..	...	..	5	..	...	..	...
11th	...	..	...	..	2	..	11	2	...	..	..
12th	1	..	1	..	...	..	1	1	...	..	...
13th	...	..	...	..	2	..	3	..	...	..	...
14th	...	..	...	..	1	..	...	1	...	..	...
15th	1	..	1	..	...	..	3	..	...	..	...
16th	...	..	...	..	...	..	2	..	...	..	...
17th	...	..	...	..	...	..	...	1	...	..	...
18th	2	..	...	..	...	..	2	..	...	..	...
19th	2	..	...	..	...	..	1	..	...	..	...
20th	...	..	...	..	...	..	3	..	...	..	...
21st	...	..	...	..	...	..	5	1	..		...
22nd	1	..	...	..	...	..	6	..	...	..	...
23rd	...	..	...	..	...	..	...	1	...	1	...
24th	2	..	...	..	...	..	...	..	...	..	...
25th	...	..	...	..	...	..	...	..	...	..	...
26th	...	..	...	..	...	..	3	..	...	..	1
27th	...	..	...	..	...	..	7	1	...	..	...
28th	1	..	1	..	...	..	1	..	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	9	2	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	..	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	..	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	13	..	5	..	5	1	79	10	...	2	1
Last week	12	1	4	..	2	1	50	8	...	3	4

The following is the mortality report for the week ending November 16, 1889.

Croup	1	
Cholera Morbus	1	
Cholera Infantum	1	
Cerebro-spinal Meningitis	2	
Diarrhœa	1	
Dysentery	1	
Diphtheria	10	
Entero-Colitis	1	
Typhoid Fever	2	
Whooping Cough	1	
Other Zymotic Diseases	1	22
Cancer	3	
Phthisis Pulmonalis	12	
Other Constitutional Diseases	2	17
Apoplexy	1	
Bright's Disease	1	
Bronchitis	1	
Convulsions	1	
Heart Disease	12	
Liver Disease	1	
Pneumonia	10	
Other Local Diseases	20	47
Old Age	3	
Premature Birth	5	
Other Developmental Diseases	4	12
Accidental	1	
Suicidal	2	3

Deaths from all Causes	101
Annual death rate per 1000	16.16
Deaths for corresponding week in 1888	84
Deaths for corresponding week in 1887	144

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 22 observers for the week ending November 16, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Tonsillitis	12	21
Bronchitis, acute	10	26
Diarrhœa	6	8
Diphtheria	5	6
Rheumatism (acute	5	6
Typhoid Fever	3	6
Measles	3	5
Pneumonia	3	4
Pleurisy	3	4
Erysipelas	3	3
Consumption (Pul.	3	3
Typho-Mal. Fever	2	4
Intermittent Fever	2	2
Dysentery	2	2
Scarlet Fever	1	6
Cholera Morbus	1	2
Remittent Fever	1	2
Whooping Cough	1	1
Puerperal Fever	1	1
Cholera Infantum	0	0
Croup, membranous	0	0
Cerebro-Spin. Men.	0	0

REMARKS.

Diphtheria: Akron, 3 cases, 2 deaths; Ashley, 10 cases, 1 death; Bellaire, 1 case; Cambridge, 1 case, 1 death; Columbus, 17 cases; Dayton, 13 cases, 5 deaths; Defiance, 2 cases; Findlay, 1 case; Fostoria, 4 cases; Hamilton, 3 cases; Lancaster, 14 cases, 1 death; Mansfield, 3 cases, 1 death; Massilon, 1 case; Middleport, 2 cases; Middletown, 2 cases; Minerva, 3 cases; Moscow, 2 cases, 1 death; New Straitsville, 1 death; Springfield, 5 cases; Toledo, 30 cases, 7 deaths; Wellston, 1 case, 1 death; Xenia, 4 cases; Youngstown, 6 cases.

Scarlet Fever: Akron, 1 case; Bellaire, 1 case; Canton, 1 case; Columbus, 4 cases; Conneaut, 1 case; Dayton, 1 case; Defiance, 1 case; Delta, 3 cases; Findlay, 3 cases; Fostoria, 3 cases; Massillon, 3 cases; Middleport, 2 cases; Pomeroy, 2 cases; Salem, 1 case; Springfield, 2 cases; Toledo, 8 cases; Wellston, 2 cases; Youngstown, 7 cases.

Typhoid Fever: Conneaut, 1 case; Dayton, 1 case; Fostoria, 1 death; Hamilton, 2 cases;

Lorain, 1 case; Mansfield, 1 case, 1 death; Middleport, 1 case; Minerva, 2 cases; Mechanicsburg, 1 case; Richwood, 1 case; Versailles, 1 case.

Whooping-Cough: Bloomingburg, 1 case; Springfield, 1 case; West Liberty, 2 cases; Youngstown, 1 case.

Measles: Youngstown, 1 case.

Bainbridge, Kent, Zanesville, Bloomville and Warren report no cases and no deaths.

C. O. PROBST, M.D., Secretary.

RECOVERY AFTER DESTRUCTION OF THE LARYNX.—An extraordinary case of recovery after destruction of the larynx has recently been recorded (*New Orleans Med. and Surgical Journal*) by Dr. Chassaignac, of New Orleans. The patient was a robust negro, aged twenty-three, who received on the left side of the neck and lower jaw a charge of No. 3 shot from a distance of eight or ten yards. He travelled by train some fifty miles to New Orleans and entered the Charity Hospital there. It was there found that the following structures had been shot away: The lower half of the middle third of the lower jaw, the integument of the anterior part of the neck from the chin to within an inch of the sternum, the hyoid bone, a part of the muscles forming the floor of the mouth, the lower anterior part of the pharynx, and the entire larynx, with the exception of its posterior attachments. In addition, the integument of the right side of the neck was badly lacerated, and there was a compound fracture of the inferior maxilla at its middle third (left side). The œsophagus was not wounded, nor were any important vessels or nerves of the neck. The The lacerated integument on the right side was sutured, and the wound thoroughly irrigated with the acid sublimate solution (1 to 2,000), after which it was dusted freely with iodoform and dressed with bichloride gauze; a tracheotomy tube was inserted. No food was given by the mouth for the first three or four days, and the tracheotomy tube required constant attention; but he ultimately made a good recovery. Five weeks after the accident his general condition was good; the lower jaw had united in good position; the wound was healed, with the exception of a small superficial ulcer, and by placing his finger over the tracheotomy tube he could speak in a voice which could be understood at a distance of five or six yards.—*British Medical Journal.*

THE USE OF ANTISEPTICS IN DENTISTRY.

[*Med. Press and Circular.*]

It is quite certain that cleanliness and the use of antiseptics in the practice of surgery have come to be regarded as the basis of the successful treatment of wounds, and we take it that what is applicable in this respect to general surgery is equally to be applied to the special branches of the surgical art. Dental forceps and the various other appliances and instruments which form the armamentarium of the nineteenth century dentist, owing to their particular construction, demand careful and thorough cleansing. A few moment's reflection upon the nature of the work they are designed to accomplish will clearly show how necessary a procedure such cleansing becomes. The mouth, for example, is a vast storehouse for germs, and is the seat of certain diseases, whose propagation by contagion has been repeatedly verified. Special mention may be made in this regard of syphilis and diphtheria. It is quite possible to conceive that the contagion of either of these disorders could be conveyed through the medium of dental forceps whose perfect cleanliness had been inadvertently overlooked. Indeed, judging from some facts which have been brought to our knowledge within the past few days, it would seem that one of the diseases above referred to had been so propagated. Cases of this description of course are fortunately supremely difficult of proof, and we presume could only very rarely occur. But the possibility of the occurrence of any such untoward event having been admitted, it would seem to follow as a matter of course that the dental practitioner would exercise a zealous watch over the cleanliness of his instruments, and a reference to Foy's or Hewitt's recent monographs on "The Use of Anæsthetics" would enlighten him on many points. There are so many effectual and facile means of sterilizing the latter, or rendering them antiseptically clean, that the adoption of the particular method of giving effect to the practice is merely a matter of detail. We do not know to what extent dentists use antiseptics in their practice, but assuming for the moment that they do not, we cannot see that they would lose in any way if they did. Rather, the principle concerned being a sound one, its enforcement, as we strongly believe, would only be productive of good.

Hypnotic Suggestion in Labor.—Professor S. Ramon Cajal, of Barcelona, reports (*Medicina Practica*, September 28) a case in which he abolished the pain of labor without in any way weakening the power of the uterine contractions by means of hypnotic suggestion. The patient was a robust woman who had already had five children. Although Dr. Cajal warrants her as not in the least "nervous" in temperament, it should be noted that she had been the subject of frequent experiments in hypnotism; in fact, she could be thrown into a trance by a mere effort of will. Ten days before her sixth confinement was due, Dr. Cajal "suggested" to her during hypnotic sleep that her labor would be short, and that she would feel little or nothing of it. She obeyed the suggestion to the letter, the dilatation of the os, the rupture of the membranes, and the expulsion of the fetus being all accomplished in less than half an hour. The patient is said to have had full consciousness of the contractions of the uterus, but without any sensation of pain, although the pulse was quickened and the breathing became labored, as is usual under the circumstances; so little did she suffer that it was difficult to keep her awake during the last stage. When all was over she walked to bed with a firm step, and soon afterwards asked for something to eat. She suckled the child on the second day, got up and resumed her domestic duties on the fifth, and was perfectly well within a fortnight from the date of lying-in.

Dr. Cajal points out the peculiarity that the rapidity of the process in this case was not less noteworthy than the absence of pain; and this was the more remarkable inasmuch as her previous confinements had all been very long. He describes the effects of the hypnotism as having been to paralyze the nerves of pain while leaving the perception of tactile impressions and the muscular sense unaffected. He suggests, as a further development of this new addition to obstetric therapeutics, that it may be possible to effect delivery during hypnotic sleep.—*British Med. Journal.*

CAFFEINE AND ITS THERAPEUTIC USES.

[*Med. Press and Circular.*]

Dr. Huchard has just given a most interesting clinical lesson on the action of caffeine at the Hopital Bichat, which I reproduce. I employed (said he) caffeine for so many years that I think the time has come to give a *resume* of my experience on the subject. But before passing in review its principal therapeutic applications I want to study the cardiosthenic, diuretic, and tonic properties.

I. Cardiosthenic Action.—In 1871, in a paper on myocarditis, I insisted upon the good effects of coffee, and especially of caffeine, which acted upon the cardiac fibres in the same manner as electricity upon an atrophied or paralysed muscle, and I cited the case of a patient suffering from confluent small-pox with a grave cardiac complication, and who recovered through the treatment by caffeine. Before this date this agent was used as a diuretic. So far back as 1725 a Dutch physician called Zuringer recommended coffee in dropsies, and two Russian doctors in 1863 published two cases of heart affection much relieved by caffeine. Later (1866) Prof. Jaccoud, in his clinical lessons at the Hopital de la Charité, said:—"Under the influence of caffeine administered in the dose of five to twenty grains in pills a day the impulsion of the cardiac organ is strengthened, the pulse becomes regular, and the urine becomes more abundant." In 1882 M. Lépine, of Lyon, proved that the dose of caffeine in heart affections should be raised to twenty, forty, and even fifty grains a day: at about the same time I arrived at the same conclusion. Caffeine acts and is eliminated more rapidly than digitalis; it does not accumulate in the organism, and produces very rarely accidents of intolerance; it raises the arterial tension, increases the diuresis, stimulates the cardiac fibre, but only on the condition of being employed in large doses. In certain cases caffeine is superior to digitalis, inasmuch as it stimulates in the last period of certain maladies for which the latter could be no longer given, especially where there exists a lesion of the myocarde. M. Constantin Paul considered that caffeine was injurious to the heart and a non-diuretic, but I made a very complete study of its effects, and I arrived at the following conclusions:—1. Caffeine given in *small* doses to animals stimulated the nervous and muscular systems, but was without action on the heart. 2. In large doses it acted at first on the nervous and muscular systems, and subsequently on the circulatory system, producing tonic convulsions, accompanied by paralysis of the hind legs, and finally increase of the heart contractions, elevation of the arterial pressure, followed by depression, irregular action, and death. At the autopsy the heart was found always in *diastole*. But in clinical practice I *never* found any nervous trouble from large doses, and it is well known that physiological effects differ frequently in the animal and man. Some persons thought that coffee produced the same effects as caffeine, but in this they are wrong. Coffee is often injurious where caffeine is beneficial. In conclusion, I have no hesitation in affirming that *caffeine is a cardiac agent of great value* when given in sufficient doses. It slows, regulates, and strengthens the heart's contractions, and raises the arterial tension.

II. Diuretic Action.—It was as a diuretic that caffeine was introduced in 1877, Gubler asserting that it was *the* diuretic *par excellence*, because he had given it to a patient affected with cardiac dropsy, whose urinary secretions went up from one pint to three in the twenty-four hours, and his opinion was accepted by certain American physicians. But here there was evidently an exaggeration. Caffeine increases certainly diuresis in cardiac affections, but much less than digitalis, and differs notably from that produced by the latter. With digitalis the secretion increases in a few hours after its adminstration from one pint to three or four quarts, while caffeine excites the flow with more regularity and much more slowly, consequently its diuretic action cannot be denied, but yet it is not so rapid in its effects as the foxglove.

III. Tonic or Neurosthenic Properties.—I have shown that caffeine is a cardiosthenic and a diuretic. I will now tell you that it is also a neurosthenic of a high class order. I have been the first to employ it in hypodermic injections, dissolved by means of benzoate of soda, for those adynamic conditions for which injections of ether were usually given. I have administered it frequently where a general tonic was necessary, and I never was disappointed.

IV. Therapeutic Indications. — Several heart affections where the organ wants to be strengthened, typhoid fever, when the condition of the patient is low, in the *eruptive* period of measles, when pulmonary congestion threatening asphyxia is present, in the pneumonia of the aged, where the *malady is in the lungs and the danger in the heart*, and certain forms of diabetes.

V. Mode of Administration.—Hypodermic injection.

Salicylate of soda,	70 grains.
Caffeine,	80 "
Water,	120 drops.

In grave cases eight or ten injections by the ordinary syringe may be made in the day.

Cardiosthenic pills:

Caffeine,	100 grains.
Benzoate of soda,	100 "
Ext. of cinchona,	2 drachms.

For 100 pills. Two to be taken three times a day.

In conclusion, Dr. Huchard said that in grave cases these pills could not be relied upon, as the dose was not sufficient, for one, two, or three scruples should be given daily, and by injections.—*Paris Correspondent.*

THE POISONOUS EFFECTS OF WATER GAS.—A new use for nitro-glycerine has been discovered by Dr. Kloman, of Baltimore. Called to see a negro girl in a profound state of coma from poisoning by illuminating gas, Dr. Kloman determined to try the effect of nitro-glycerine, and injected a solution containing one-fiftieth of a grain into her arm. At the time she was quite pulseless; in two minutes a return of the pulse at the wrist could be made out, and in five minutes there was a full and strong pulse, and the girl made a rapid recovery. As evidence of how much more dangerous the modern illuminating gas (the so-called water gas) is than that made from coal, Dr. Kloman mentions that since 1881, when the water gas began to be used in Baltimore, there have been fifty-one deaths from this form of poisoning, whilst before that date there was but one death.—*Brit. Med. Jour.*

IF you use a fountain pen, and find it difficult to unscrew the tip, wrap a rubber band a few times around it, and this will give you a good grip. A string or dampened piece of paper will also help.—*Med. and Surg. Reporter.*

THE MORTALITY AMONG NURSING ORDERS.

[*Medical Chronicle.*]

Dr. Georg Cornet (*Zeitschrift für Hygiene*, Band vi, Heft 1) commences the record of his valuable piece of statistical research with a lament that so much indifference is displayed even amongst medical men to the infection of consumption and to the means of averting the disease. In what position would surgery be if the same indifference were displayed in the case of wound diseases? In casting about for a means of showing practically the danger of infection, Dr. Cornet's mind reverted to those attendants on the sick who are placed in very intimate contact with tuberculous persons. He therefore applied to the Minister for Spiritual, Educational, and Medical Affairs, and it is with his assistance that the requisite statistics were obtained. Hereupon follows a classification of the various orders engaged in nursing. On considering the matter carefully, Dr. Cornet rejected from his statistics all private attendants on the sick, as being a class which for various reasons does not adhere to nursing. Secular orders of nurses are excluded, as they get married, etc., and their movements cannot be pursued. For the same reason the order of deaconesses is rejected.

There remain the male and female Catholic Orders, inasmuch as these are bound by a sacred vow for life to remain in the order, and can leave neither on account of sickness nor for any other reason. This limitation was the more cheerfully undergone, that the Catholic attendants on the sick formed a majority, and in 1885 numbered in Prussia about 6,000 persons. In order to give the inquiry the strength attaching to large numbers, it was extended over a period of twenty five years.

Particulars were requested from each convent as to the number of deaths in each of the twenty five years, the respective causes of death, the age and duration of stay in the convent of the deceased, the duration of sickness, the nature of the occupation; and some general questions were asked as to the yearly number of sisters and novices, and as to the age and number of the yearly recruits.

Reports were obtained mainly from the mother houses of the nursing orders of the Prussian State, giving the required details respecting themselves and the dependent or daughter houses. All the convents could not supply answers to all the questions, especially for the earlier years, but the difficulty thus produced was inconsiderable. On looking into the materials the reports of 38 convents were found utilizable, representing a yearly average of 4028.8 Sisters and Brothers, and out of a total of 87,450 years of life 2099 deaths.

Here follows Table I, exhibiting the mortality from the various causes of death during the twenty-five years, each convent being given separately with the total number of deaths and the causes of death. The percentages of total deaths to total lives, of deaths from tuberculosis to total deaths, are also given for each convent. A casual glance over this table shows that the relations of the deaths amongst themselves is quite unusual; for whilst we are accustomed to find deaths from tuberculosis figuring as one-seventh to one-fifth of all deaths, they form here nearly two-thirds, a proportion which is seen to be exceeded in nearly half the convents, and in some mounts to as high as three-fourths. In two small mother houses every death is put down to tuberculosis. The percentage differs in different convents. Those having the smaller comparative mortality from tuberculosis are those containing fewest persons. Also we have to consider that some of them are surgical stations, in which the danger from this disease is less. But, besides, the mode and thoroughness of dealing with the infectious material from tuberculous patients will cause differences. It is lamentable to think that many are satisfied with providing the patient with a glass to spit in, and take no account of the matters spat elsewhere. That phthisical wards differ greatly in their infective capacity is shown by the examination by the author of dust from seven such wards, two showing no infective properties.

Table II. exhibits the mortality from tuberculosis and other diseases in the individual nursing orders at different groups of ages, 15–20, 20–25, 25–30, 30–40, 50, 60, 70, over 70. The average age at death is also shown for each convent. This table exhibits a rapid decline of death after 40, but a little consideration shows that this is due to the great destruction of life at previous ages. The small number of deaths between 15–20 is, no doubt, dependent on the ages at which the convent is entered. The average age at death for the 2,261 deaths is 36 27 years, a figure which, alone, suffices to prove the greatly increased mortality in these institutions. It is necessary to remember that these attendants are not recruited from the weakly, but that they enter the convent fairly strong men and women, and, that this is a condition of their taking up the service. There is no known group of the population which sustains such a mortality and dies so young. To take the lowest in the appended table, the age at death of millers is 45.1 years, of tin-wörkers 47, of coppersmiths 48.6, and so on.

If, now, we examine the Tables I and II, to see the cause of this low duration of life, we find that in all the nursing orders the mortality is raised to a quite unwonted extent; that its highest point, contrary to the general relation, falls on the periods of life from 20 to 50, and that the chief cause of the excess lies in the preponderating occurrence of tuberculosis.

Table III. exhibits the deaths in all the Catholic nursing orders, taken together, according to the causes of death and age groupings.

Table IV. shows the mortality for each cause of death per 10,000 living at each age group—for the State and the nursing orders respectively.

Table V. exhibits the proportions of the various causes of death at each age group in the nursing orders and in the State.

Slight sources of error are introduced into these tables by the varying ages at which the convent is entered, and by the greater precision of diagnosis in the convent. But the errors are inconsiderable.

These tables exhibit an enormous comparative mortality from tubercle in convent nurses, and this is seen to be most strikingly the case at the early ages. The explanation of this is no doubt to be found in the fact that novices are tested by having hard and disagreeable duties imposed upon them. They have to clean out the wards, to make the beds, to remove and clean pocket handkerchiefs, etc., and are generally exposed to infection in a quite exceptional way. As they get older they become more and more strictly nurses, and are not exposed to infection to the same extent.

Table VI. exhibits the relation of the mortality to the duration of stay in the convent or of occupation as sick nurse. This remarkable table shows that over one-third of the nurses die in the first five years after they have entered on their duties, and in the first ten years almost twice as many die as in the remaining period. The height of the mortality from tuberculosis is reached at the commencement of the third year. Hence tuberculosis is not slowly produced in these nurses as a result of hardship, superimposed on a hereditary tendency, but it is the direct consequence of intimate association with careless phthisical patients. With regard to other infectious diseases, the highest number of deaths from these also occurs in the earlier years.

The excessive mortality from tuberculosis, which these figures reveal, is not the result of the convent life, which, on the contrary, avoids all those cares, miseries, and dissipations, which have so powerful an influence on health outside. Only one adverse influence can be adduced, namely, the cramped existence together of such large numbers, which to be sure will not produce tuberculosis, but will give to its spread, when introduced, great facilities.

It is, however, to intimate association with consumptives that the chief effect is to be ascribed. It is of course not maintained that the calamitous state of things here depicted is confined to convent nurses. We know that amongst the poorer classes, in their narrow and dim dwellings, a consumptive may soon infect a whole neighborhood. It remains, however, that, mainly from this disease, more than two-thirds of these nurses fall victims to the performance of their noble duties.

How then is the danger to be avoided? The solution is found in these words: If we can avoid the drying of the sputum, we can avoid the danger. It is not enough to supply a spittoon. One must watch that the patient does not spit in a pocket handkerchief, or on the floor. The same applies, of course, to dirtying of the bedclothes. The cloths used to wipe the mouth must be forthwith cleaned. Notices giving the necessary directions should be posted in the wards, and any neglect should be sharply come down upon.

The medical man who treats phthisical patients, especially in a hospital, without taking such precautions, is himself a source of infection.

THE VALUE OF A BALD HEAD.

[*Med. Press and Circular.*]

A medical correspondent contributes to a lay contemporary some remarks upon his profession which, although in some respects containing a good deal of truth, are nevertheless confessedly amusing. His main object in view is to show that he has made a gross mistake in joining the ranks of medicine, instead of investing his money, which had been spent upon his education, in some business concern. He describes himself as a failure, and this after having worked exceedingly hard at his profession. The cause of his failure he attributes to the absence of two things which are chiefly essential to success in the medical profession. These, he asserts, are, in the first place, money; and in the second, a bald head. "I have no money and my hair is inconveniently thick. Incipient baldness gives the appearance of a 'high and dome-like forehead,' and inspires the ladies with confidence. The fortunate possessor of this beautiful feature is pronounced 'very clever,'—which settles the matter. Besides, it is almost indispensable for a 'good bedside manner.' All my medical friends who are getting on well, have either money or bald heads; most of them have both." It is no doubt very much to the advantage of a young practitioner to exhibit a "modern antique" appearance, and nothing contributes so greatly to this end as a head which is innocent of hair. There is a real commercial value in a bald head, but this value is by no means confined to the medical profession. Whatever advantages, however, it may confer on a "business young man," to a medical man, a fair estimate under favorable circumstances would be, at the lowest, five hundred a year. The assumption of age and ripe philosophy which a man can safely indulge in, whose hair follicles upon the top of his head have in early manhood undergone a process of fatty degeneration, leaving a white expanse of reflecting integument, is a matter of common observation. The public are impressed by the appearance of things under these circumstances; a bald head will carry conviction to their minds when nothing else will—saving perhaps a flowing beard. Even the lower animals are not insensible to its attractions. It is recorded that an ostrich once sat down upon the bald head of an Englishman, under the impression that it was an egg which required hatching. The circumstances were favorable to this slight error of judgment, and the sagacious bird must be acquitted of having purposely attempted to play a practical joke. But in this matter, as in all things else in life, appearances are everything. No one knows better the value of a bald head than he who possesses it, at all events in medicine; but how strangely captious is Nature, for while one man, greatly to his worldly prosperity, conveniently finds his head becoming bald, another has to seek consolation where he can under the depressing circumstances of knowing that his head is the only place upon which he cannot get hair to grow.

DECOMPOSITION OF IODOFORM SOLUTIONS.—According to Carles (*Moniteur de la Pharm.*), when an ethereal solution of iodoform approaches the point of saturation, it decomposes with great facility, and assumes a color resembling that of iodine tincture. A few drops of this altered solution will turn starch paper blue, showing that part of the iodine has been set free. In general, the decomposition is proportioned to the degree of saturation. When the ether is anhydrous and chemically pure, the same change takes place as with the medicinal article. By alcoholized ether, decomposition is retarded, as also if the solution be exposed to the action of light. Air and ozone are without influence in this direction. The amount of iodine thus liberated is less than the phenomena would seem to indicate. It may be estimated by shaking a globule of mercury in the solution, when the free iodine will unite with the metal, forming proto-iodide of mercury, and the solution, being no longer saturated, will become more stable. Iodoform solutions thus partially decomposed may be employed in surgery without any inconvenience. Solutions of iodoform in chloroform are similarly acted on.—*Druggists' Circular.*

ALLEGED DANGER IN WOODEN TOOTH-PICKS.—It has been asserted that chewing wooden tooth-picks sometimes produces small ulcers in the mouth, and that even the stomach has been similarly affected by the action of the small particles of wood detached by chewing.—*Druggists' Circular.*

THE SCIENTIFIC USES OF VERY HIGH TOWERS.

[*British Medical Journal.*]

It appears that we are really going to have in London a second, revised and enlarged, edition of Eiffel's Tower. Probably the first object of most promoters of such a tower would be to make it pay; but there are other uses a lofty structure of this kind might be applied to, and it would undoubtedly afford valuable means of scientific observation, especially of a meteorological character.

Mr. Glaisher has gone up in a balloon to investigate the state of the atmosphere at different elevations. The proposed tower would allow of an inquiry into the atmospheric conditions up to 1,200 feet. From such a height we should look down upon the hills of Wimbledon and Norwood; and when the Thames Valley and surrounding hills have disappeared in fog-land, we should probably, on our aerial station, enjoy a genial warm sunshine in a blue sky, while gazing upon a vast sea of fog, from which the towers of the Crystal Palace would peep out like two light-houses. On our way down there would be endless observations to make on the changes of temperature, or, to speak more to the point, on the absorption of solar heat by the fog stratum. Now that we are able, thanks to Sir G. Stokes's and Mr. Jordan's sunshine recorders, to obtain permanent tracings showing the length of time the sun is shining or obscured by clouds, such an instrument at the summit and at the foot of the proposed tower would not fail to give very interesting records in comparison with each other.

Instruments for measuring the heat of the sun's rays, such as black bulb thermometers *in vacuo*, and actinometers, disposed at the top and bottom of the tower would also give very interesting readings, the instrument at the highest station probably showing an excess of the sun's heat over the other, because of the atmospheric humidity intervening between the earth's immediate surface and an altitude of 1,200 feet. Thermometers disposed at various heights, and properly screened from radiation, would show the temperature of the atmosphere at different levels, giving this curious result, that the sun would be warmer at the top than at the bottom, but, in the absence of sun, the air would be colder at the top.

At night the distribution of the temperature in the atmosphere is known to be the reverse of the daytime. On a fine clear night the temperature will be found higher at 1,000 feet than it is on the earth, while on a cloudy night it will be much the same at both stations; but we have much to learn on the laws of terrestrial radiation, and the proposed tower would be very useful in that respect.

Of course an observer would not be expected to race day and night up and down a tower 1,200 feet high, to make observations and read thermometers; this would be too great, and indeed an unnecessary, devotion to science. The whole thing can be done from below in a comfortable building by means of Siemens' electric thermometers. Such an instrument has been used for some time, and is now at work at the Lincoln Cathedral, giving correct thermometer readings on the earth's surface from a height of 270 feet.

Besides observations for temperature at various altitudes, the state of humidity of the atmosphere, a condition greatly concerned in the formation of fogs, could be readily examined, dry and wet bulb thermometers disposed at various heights and in electrical connection with the station below would yield interesting observations, and assist materially, in conjunction with the barometer, in forecasting the weather.

The force and direction of the winds at various altitudes are subjects for meteorological inquiry of much interest and importance; there are eddies in the atmosphere, spiral and upward currents, of which little is known, and a tower such as that now contemplated would allow of very interesting observations to be made on winds. We may also venture to suggest that the information thus obtained would have an important practical bearing in an engineering point of view, as showing the strength of the wind buildings may have to withstand at great heights.

The measurement of rainfall, made simultaneoully at 1,200 feet and on the ground, would add to our knowledge of the laws of rainfall; it would be found that less rain falls at the top than at the bottom. The connection of this phenomenon with atmospheric humidity and temperature would be very interesting to investigate. But fancy being in the track of a thunderstorm in such a lofty, mid-air station, and perhaps enjoying the sight of lightning not above, but below, with deafening peals of thunder and rain forming underfoot; hail may be heard rattling from one cloud to another, or brushing sideways into the face. This, indeed, would be worth being lifted up to 1,200 feet to witness, and such a sight could not fail to leave a long-lasting impression.

Finally, earth tremors, the forerunners of earthquakes, could be felt at the summit of a high tower much more readily than in contact with the earth, and earthquakes might be expected to produce greatly magnified effects at such an elevation; hence a seismometer would find a fitting place at the top of the proposed building.

A great deal might be added on this subject. We have not touched on the astronomical uses of a very high tower, from the greater clearness of the atmosphere at such an altitude. There are also other points of physiological interest that could have been dwelt upon, such as the influence of an altitude of 1,200 feet on respiration, or on the nervous system. It might be remarked that there would be little fear of feeling giddy when looking down from a tower such a height, although the view over a precipice of 1,200 would not be unlikely to produce a most unpleasant sensation. This is owing to the fact that there would be high bulwarks round the platform at the top of the tower, giving perfect security; anybody may have experienced the absence of giddiness while looking down from the summit of Eiffel's Tower.

Enough has been said, we think, to show that Sir E. Watkins's tower, if constructed, will prove of great use from a scientific point of view, and we trust that due accommodation may be reserved at the top of the tower and down below for instruments and observers.

THE RELATION BETWEEN LIGHT AND ELECTRICITY.—An address on this subject was given at the sixty-second Versammlung deutscher Naturforscher und Aerzte, by Prof. H. Hertz, of Bonn. The point that he would discuss was the one that all light, the light of the sun, the light of a candle, the light of a glowworm, was nothing more than an electrical phenomenon; that with the withdrawal of electricity from the world, its light would also vanish. Some of his experiments formed a link in the chain of phenomena. The processes took place in empty spaces filled with ether; the explanation of them was associated most readily with the question of the nature of light. From the nature of light, it was evident that space was not empty, but was filled with a waving medium, ether.

In the writings of Faraday, there were several indications of the possible connection of the electricity with the ether-waves of light. Maxwell, a pupil of Faraday's, developed in 1865 an electro-magnetic light theory. There were two proofs that were necessary for a demonstration, first, that electric or magnetic action could be obtained directly from light, and second, that there were waves of electricity or of magneto-electric waves spread out in the same way as light. These two proofs would be a certain support for the arch that spanned the gulf between light and electricity. At present there were positive results as regarded the second point only. His experiments showed that there were electrical waves, that they were transversal, and that they required a certain time for their progression. The electrical rays resembled those of light. The electrical light waves followed the same laws as light itself. Thus the connection between electricity and light, which had been suspected in Maxwell's theory, was demonstrated, and a new insight into the realm of optics was obtained. The domain of optics was limited no longer to ether waves, which could be reckoned by fractional parts of millimetres, but experiment showed that optical waves of metres and kilometres in length existed. And yet they appeared to be but an appanage of electricity. We saw electricity in a thousand places, and a body that neither gave light, warmth, nor rays, could be in possession of electrical currents. New questions were constantly cropping up, the nature of electricity, the nature of the electric and magnetic forces in space, of gravitation, and above all things, the knowledge of the ether of space; the last question, the knowledge of ether, would perhaps disclose the properties of matter. Not out of fire and water, as was once thought, had matter arisen, but perhaps everything that existed has been formed out of ether. A new standpoint had been gained, which lay higher and nearer the summit of knowledge than the previous one.—*Med. Press and Circular.*

THE "NORMAL" DIET. — Mr. G. Munro Smith, writing on this subject, states that the daily destructive metabolism, which is the great criterion of work done, does not vary much amongst different occupations. Premising that he does not consider moderate over-eating injurious, he finds that very many men eat considerably more than the most liberal tables; it is not an uncommon thing for an average sized man on very moderate work to eat twenty-five or twenty-seven ounces of chemically dry food a day. Women eat much less than men, after making allowances for differences in weight and work. Where a man eats nineteen ounces, a woman of the same weight and of active habits eats only fourteen or fifteen ounces. On a diet from which all meat is excluded he has found that twelve to thirteen ounces *per diem* will comfortably feed a hard-working man. A moderate amount of stimulants appears to increase the average; moderately free drinking diminishes it. A diet consisting of one part of nitrogenous to seven or eight non-nitrogenous is a good combination; it is greatly exceeded on the nitrogenous side by the majority of men and women, especially the former. A diet of twelve to fourteen ounces of chemically dry food, digestible, with the ingredients in proper proportion, is sufficient to keep in good health an averaged sized man on moderate work. The majority of people in England eat literally twice as much as this.—*Bristol Med.-Chir. Journal.*

WE'VE ALL BEEN THERE.—George: "What a fine building that is across the way."

Charles: "Yes, yes; but the owner built it out of the blood, the aches and groans of his fellow-men; out of the grief of crying children and the woes of wailing women."

"Ah! A rumseller, of course. Yes, yes!"

"Oh, no; he's a dentist."—*Toronto Grip.*

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MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, November 30, 1889. *WHOLE VOLUME LXII.*

Original Articles.

ON PLEURITIC EFFUSION.

WITH A REPORT OF CASES.

A Paper read before the Academy of Medicine, October 21, 1889,

By W. E. KIELY, M.D.,
Professor of Principles and Practice of Medicine, Woman's Medical College, Cincinnati.

To Dr. Bowditch, of Boston, the profession in this country is indebted for placing the treatment of this disease on a scientific basis. Previous to his calling attention to the benefits derived from thoracentesis, and, indeed, in the hands of many practitioners of the present day, the old methods of blistering, catharsis, and absorbent remedies are still in vogue. The so-called absorbent remedies are of doubtful utility at best, and when one imagines a pleural cavity filled with fluid, a lung compressed—yes, carnified—what condition is there to promote absorption? When can absorption take place?

Pleurisy, with effusion, is never an acute disease *per se;* that is, it is not attended by the prominent symptoms that we ordinarily find in an acute attack where the exudation is in great part fibrinous. We know that in an acute inflammation of serous membranes lymph is poured out in abundance, while in the subacute condition, especially in broken-down subjects, serum predominates. This class of cases is often overlooked, and treated for indigestion, phthisis, intercostal neuralgia, etc., unless a careful physical examination is resorted to.

The symptomatology of this disease is misleading, and it is not to be wondered at that the true condition is overlooked by individuals who rely on this method of diagnosis.

The diagnosis of effusion is, under ordinary circumstances, not difficult. There will be absolute dulness over the base of the lung, with an entire absence of respiratory sounds; and one of the most prominent signs is absence of vocal resonance. This latter sign is only absent in a pleuritic effusion and in a consolidated lung where there has been a thickening of the pleura from a previous inflammation. Bulging of the intercostal spaces on the affected side is not well marked and cannot be relied on unless the subject is emaciated and the effusion considerable.

The following cases I have selected as being of interest. Two other cases I have seen, but as my suggestions would not be accepted they passed from my care.

CASE I.

G. W., æt. 16, German, single, laborer. Entered the Cincinnati Hospital February 16, 1877. Father died of dropsy, mother of phthisis. Has always been healthy until six weeks ago, when he began to have pain in the left side and a smothering and compressed feeling in his chest; has been coughing considerably since that time, and expectorated a quantity of greenish matter; has a constant pain in the left side, exaggerated during inspiration.

Present condition: A fairly nourished boy, very anæmic, light brown hair, blue eyes; appetite poor, tongue clean, bowels costive; pulse 120, temperature 103.5°.

February 23. Physical examination: Diminished expansion of left side, with high pitch on percussion; subcrepitant rales heard over left apex and above the spine of the scapula; bronchial breathing and feeble respiratory sounds behind and lower down on the same side.

Temperature from that time to March 7 varied from 99° to 102°, expectoration becoming more scant, and anæmia, feebleness and emaciation increasing.

Having watched this patient with a good deal of interest, I became satisfied that there was something more in his case than I had discovered. Accordingly, on March 8, after a careful examination, I found marked dulness over the lower portion of the left lung, with entire absence of the respiratory sound. I suggested to Dr. Carson, with whom I was serving as interne, that there was fluid in his left pleural cavity. He confirmed my opinion on examination. I introduced a long needle attached to a hypodermic syringe, and withdrew some serum. March 10, I had the opportunity to aspirate his chest, and obtained eighty-four ounces of serum. From Dr. E. W. Walker, who succeeded me on that day, I learned that he improved rapidly from that time, and some weeks afterwards was discharged improved.

CASE II.

This case illustrates the latency of effusion very markedly, and how easily it may be overlooked unless a physical examination is made.

J. L., æt. 29, American, single, laborer. My attention was directed to this man soon after I took charge of the City Workhouse, in January, 1883. About two weeks previous he was engaged in cutting ice on the canal. After his day's work he undertook to drink out a saloon in the neighborhood; result, was found asleep on a lumber pile on the bank of the canal in the morning, was taken to the station-house, and from there to the work-house. He was about the prison complaining of a dull pain in the right side, dyspnœa and loss of appetite. As he was an old timer, the officers tried to convince me that he was a malingerer. I had him admitted to the prison hospital, and on examination found dulness extending from the inferior angle of the scapula to the ninth rib, with absence of respiratory sounds. Pulse 124, temperature 102°. Next day I aspirated 132 ounces of serum from his right pleural cavity. On the day following his pulse was 80 and the temperature normal, and in a week he was about the prison again.

CASE III.

The following case is instructive as showing how long a pleuritic effusion can be tolerated before any serious symptoms manifest themselves. I will also show by this case the beneficial effects of early aspiration.

J. M., æt. 28, single, machinist. Father living and healthy; mother died of dropsy; a brother and sister living and healthy. About March 15, 1888, he fell off an iron casting, striking on his right side. Two days later he was struck on the same side with a crowbar while engaged in rolling iron pipes. He continued at his work for a month, and during that time had a constant pain in the right side, with some dyspnœa, especially on ascending a hill. At the time of his injury he weighed 170 pounds. Before he quit work he was treated for intercostal neuralgia by a physician. Loss of appetite, a dry hacking cough, and weakness compelled him to take to his bed April 18; for some weeks afterwards he was treated by another physician, who pronounced his case pneumonitis. A slight improvement took place, so that he was able to walk out for a few days. About a week before I saw him he had to go to bed again.

His condition on my first visit, June 5, 1888, was as follows: Very feeble, anæmic, loss of appetite, sleeplessness; could not lie on either side; pulse 124, temperature 102°; dyspnœa more marked on changing from the recumbent to the sitting position; night sweats, a dry cough; weight 128 pounds. On inspection an apparent bulging of the right side; dulness on percussion marked; entire absence of respiratory sounds, and absence of vocal resonance, from the inferior angle of the scapula to the base of the lung.

I gave it as my opinion that his chest was filled with fluid. On the following day I introduced a long needle attached to my hypodermic syringe and drew off some serum.

June 7, assisted by Drs. Kane and Lewis, I introduced the aspirator needle between the eighth and ninth ribs posteriorly and on a level with the inferior angle of the scapula, and obtained about one gallon of serum, having previously stimulated him with whisky and administered morph. sulph., gr. ¼, hypodermically. June 8, pulse 84, temperature 99°. Slept well last night.

From that time until June 22, when I discharged him, the improvement was rapid; he ate and slept well and gained in weight. The respiratory murmur began to return in the lungs very slowly. By July 25 he was enabled to return to his work, with some contraction on that side, his weight having increased in the meantime to 150 pounds.

September 25, 1888, I was called to see this young man again. On the previous day he was seized with a sharp pain in the left side. I found him with a pulse of 100, temperature 100°; unable to lie on that side; slight dulness on percussion over the base of the lung, and a crackling sound on inspiration. I felt that a pleuritic effusion was taking place in the left side. In the hope of obviating the necessity of aspiration again, I placed him on opium, quinine, iodide, ammonia and fomentations. Notwithstanding the vigorous treatment, the dulness increased over the lower portion of the chest; dyspnœa increased until the morning of September 26, when I was summoned in haste. Realizing what was taking place, I went prepared to aspirate. When I reached the house, accompanied by Dr. Kane, I learned that during the night and early in the morning, in attempting to rise in bed, he was taken with smothering, and for a while his family supposed him dying. I found him with a pulse of 132; respiration very rapid. I had him propped up in a chair, having prepared him as before, and introduced the aspirator needle. I obtained a little more than a gallon of serum.

From that time on he made a steady recovery, and it could be noticed that the lung was rapidly regaining its functions. In a week the respiration could be heard at the base distinctly; his pulse and temperature were normal after the second day, and on October 25 I discharged him cured.

The etiology of this affection is somewhat obscure. Aside from its occurrence in chronic nephritis and tuberculosis, it is difficult many times to ascertain the cause. We cannot, however, ignore the effects of cold and exposure as an exciting cause, especially if the person be addicted to alcohol.

Case I. I take to be secondary to the tubercular condition of the lung.

Case II. was undoubtedly produced by exposure.

In Case III. I take it that the attack was brought on by the injury to the right side some weeks before, together with the fact that he was employed in an open shed. What brought on the pleuritic effusion in the left side three months after his first attack, I am unable to answer. When he was taken with the second attack of pleurisy, I was inclined to the opinion that he was tubercular. I examined his lungs carefully, but could find no evidence of it. The subsequent history proved that my fears were groundless.

October 20, 1889. I had the opportunity to examine his chest to-day. Percussion note is clear and the respiratory murmur is perfect on the left side. On the right side there is dulness extending from the sixth rib downwards, with absence of respiration; there is also a marked flattening antero-laterally from the sixth rib downwards. Measurement around the chest shows a difference of one and one-fourth inch less on the right side. He has regained flesh and strength and is able to work daily.

This patient illustrates the advantage of an early aspiration. Had a diagnosis been made and aspiration resorted to while his right side was affected, he would have been saved five or six weeks' suffering, aside from the permanent injury done to his lung by compression and inflammatory products.

I stated, in speaking of the diagnosis of pleuritic effusion, that under ordinary circumstances it was not difficult. Two other cases I will briefly report, which will show under what circumstances a person may be deceived by physical signs, and under what circumstances it may occur, viz., a consolidated lung where old pleuritic adhesions have bound it to the chest wall.

CASE IV.

In November, 1888, I was asked by my friend Dr. Lummis to see with him a man, æt. about 60 years, a laborer. He was poorly nourished and much worn, suggesting a greater age than that given. About two or three weeks previous to my visit he was taken with fever, cough, loss of appetite, pain in the right side, etc. The doctor had diagnosed pneumonitis, but as he did not seem to improve he suspected that there might be an effusion in the pleural cavity, especially as there was an apparent bulging on the affected side. He gave the history of a winter cough, with occasional pains in the side. On examination dulness was marked over the base of the lung, with absence of respiration. I was inclined to the opinion of fluid, and so introduced a long needle. I could feel the lung pressing against the needle. Moving it about, I could feel that I was in a circumscribed cavity. On withdrawing the piston I got only a few drops of serum.

We had in this case a consolidated lung where resolution had not taken place, together with a thickened pleura and adhesion-bands from old pleuritis.

CASE V.

C. M., æt. 42, superintendent of an ice-house. Has had chronic bronchitis for some years; with that exception his health has been good. I saw him February 28, 1889. He had been on one of his periodical drunks; his cough had stopped, and he was suffering from dyspnœa; he complained of pain in the left side, about the nipple; pulse 112, temperature 102°, respiration 36. I gave him ammonia carbonate, digitalis, whisky and milk, and fomentations to the side. His condition grew steadily worse until March 7, when his pulse was 132, temperature 104°, and respiration 48; cough dry; very restless; dyspnœa very great. He had been kept alive for the last three days on whisky, digitalis and milk. Was seen in consultation at 3 p.m. by one of the best diagnosticians of this city. I had previously pronounced it a case of broncho-pneumonia. After a careful examination, he suggested that the signs indicated an effusion also, and advised my trying to draw off some fluid in the hope of relieving the dyspnœa. At 8 p.m., accompanied by Dr. Kane, I went prepared to aspirate. We had his body drawn over the edge of the bed, he being too feeble to be placed in the upright position. Taking a seat on the floor, I punctured the chest in the eighth intercostal space posteriorly, as in the other cases. The needle entered a small space surrounded by dense membrane, and, to my disgust, got only about one-half ounce of bloody serum. To the eye this side of the chest presented a marked bulging. He was returned to bed, and in a few days began to improve and made a good recovery.

INDICATIONS FOR THORACENTESIS.

Loomis, in the last edition of his book, says: "Little can be done by medication to hasten the absorption of fluid." Again, he says, "when a perfect instrument is used and a small needle introduced, the entrance of air is impossible. In any case, where the accumulated fluid remains stationary for one week, or is increasing after the cavity is half filled, and especially when the cavity is completely filled, there should be no delay in aspirating; every day that the lung remains compressed, and with every addition to the plastic deposit upon the pleural surface, the chances of its absorption are diminished and the danger that the lung will be permanently crippled is increased" (Anstie, vol. ii, p. 356).

Reynold's "System of Medicine" says:

"1. In all cases of pleurisy, at whatever date, when the fluid is so copious as to fill one pleura and begin to compress the lung of the other side; for there is a possibility of sudden and fatal orthopnœa.

"2. In cases of double pleurisy when the total fluid may be said to occupy a space equal to half the united dimensions of the two pleural cavities.

"3. In all cases where, the effusion being large, there have been one or more fits of orthopnœa.

"4. In all cases where the contained fluid can be suspected to be pus.

"5. In all cases where a pleuritic effusion occupying as much as half one pleural cavity has existed as long as one month with no signs of absorption."

REMARKS.

When an effusion is discovered in the pleural cavity, the indications are clearly to remove it by aspiration. The operation is not attended with any danger.

The patient, preferably, should be placed sitting in a chair, with his back to the operator.

A hypodermic injection of morphia, administered before operating, will greatly relieve the distressing cough that usually ensues on the withdrawal of fluid.

The needle should be rendered aseptic before puncturing.

The point of puncture I prefer is on a line with the inferior angle of the scapula and between the eighth and ninth ribs, pushing the needle directly inwards and keeping it parallel with and close to the ribs upon entering the chest.

There is nothing to be gained by leaving any fluid; continue the aspiration as long as any will follow.

By drawing the skin backwards before inserting the needle, a valve will form and cover the site of the puncture in the chest wall upon its withdrawal.

A strip of muslin should be pinned

tightly around the chest after placing the patient in bed.

The early aspiration of the fluid tends to prevent the formation of adhesion-bands; it also allows the lung to expand and regain its normal functions, and will prevent the contraction of the chest that always takes place after an effusion is allowed to remain for some time; and, lastly, it obviates the liability of the fluid becoming purulent.

146 Broadway.

[For discussion see p. 605.]

The Flagella of Bacteria.—As the result of a new method of staining, Loeffler has been able to show the presence of flagella in a micrococcus, small bacilli, the "comma" forms, etc. The materials and manipulations as given in the *Centralblatt für Bacteriologie* are as follows: Prepare a mordant by adding to 10 c.c. of a 20 per cent. aqueous solution of tannin a few drops of an aqueous solution of ferrous sulphate, until a violet-black tint is obtained. Steep one part of logwood in 8 parts of water, and add 3 or 4 c.c. of the infusion to the preceding, changing its color to an impure dark violet, but ceasing short of precipitation. The addition of 4 or 5 c.c. of 5 per cent. carbolic acid adds to the permanence of the mordant. The stain is then made as below: To 100 c.c. of saturated anilin oil water (made by thoroughly shaking up a few drops of the oil in a quantity of water and carefully filtering) 1 c.c. of 1 per cent. solution of sodic hydrate is added, the whole is poured into an Erlenmeyer flask containing 4 or 5 grams of one of the commonly used anilin powders (fuchsin, methylene blue or violet), closed tightly with a rubber stopper, and well agitated. When wanted for use a few drops of this saturated staining fluid is filtered directly on to the cover-glass. Cover-glass preparations, dried and flamed in the usual way, are flooded with the mordant and allowed to steam over the burner for a short time, then very thoroughly washed in water, a few drops of the filtered saturated stain placed on the preparation, and this gently steamed over the flame for several minutes. When the preparation has assumed a black-red color (if fuchsin is used), the dye is rinsed off under running water and the cover examined and mounted in the usual way.—*Druggists' Circular.*

THE EXAMINATION OF A CASE OF INSANITY.

A Paper read before the Academy of Medicine, November 11, 1889, by

Philip Zenner, A.M., M.D.,
Clinical Lecturer on Diseases of the Nervous System, Medical College of Ohio.

Cases of mental disorder offer difficulties in the way of their examination and diagnosis not found in other forms of disease. Eliciting and determining the proper value of mental symptoms is much more difficult than the same process with mere bodily symptoms, not to speak of the ofttimes uncommunicativeness of the patient, so that no utterance can be obtained from him, dangerous violence on his part, etc.

The best mode of examination will vary greatly, and the points essential to a diagnosis will be very different in different cases. The more extensive the physician's experience with the insane, the more likely is he to adopt the best mode of examination in the individual case; the more thorough his knowledge of insanity, the more likely is he to make a correct diagnosis.

In this brief paper I can only attempt to give a few hints in this direction.

Whenever possible it is well to obtain a complete history of the patient before making a personal examination. Without such a history it is often impossible to make a correct diagnosis, and, furthermore, the history often affords a clue to the best method of examination.

The mode of direct examination will depend largely on the condition of the patient. He may be so stupid, or so obstinately silent, that it is impossible to have verbal communication with him. In such case, in addition to the history, the physician must study the physical condition of his patient, his facial expression, and how he reacts to the various mental and physical stimuli brought to bear upon him. Or the patient may be so violent that conversation with him, and even a physical examination, is impossible. In this case the physician must learn what he can from the history and actions of his patient, while he must await the possibility of a more careful examination before making a precise diagnosis.

Again, in other instances the volubility of the patient reveals immediately the whole current of his thoughts, without suggestion or urgency on the part of the physician.

In the instances already alluded to, unless the question of simulation arises, the recognition of insanity is easy, though a precise diagnosis may require further observation. The class of cases in which the physician is asked to determine whether or not insanity is present, is usually that where the patient is still at or near the border line, or that other class in which the patient is able to express himself fairly on many subjects, and knows how to conceal his delusions when he wishes, for he is aware that they are looked upon as insane ideas. It is, according to my experience, best to approach such a patient in the role of physician, and question him in regard to his health in general. This will often lead to some opening in which his special delusion may be drawn out. The physician must watch every word of his patient, so that he may detect a word or phrase which is a clue to him, following which he may lead the patient to fully disclose his insane ideas. At the same time he must aim not to let his patient see that he is specially interested in his mental status.

If the examination has not yet brought out any abnormal mode of thought, after the physician has gained the confidence of his patient by his manifest interest, he may ask for an explanation of some act of his or of some former utterances to others, and thereby evoke the expresssion of his delusions. Any arrogant ways on the part of the physician, an air that he is dealing with an insane mind, or derision on his part, may cause a failure to obtain an expression of the patient's delusions, as well as have an unfavorable influence in the way of intensifying, rather than removing, insane ideas.

We may say, in general, that in the examination of insane cases the physician must be gentle, but firm; he must study carefully every word and action of his patient, without revealing his close scrutiny; and he must make a thorough physical examination, both on account of the light it may throw upon the case and because of the confidence it is likely to inspire.

It is not intended that this paper should treat of the diagnosis of the various forms of insanity, at least not in a comprehensive manner; but, for the purpose of being suggestive as to modes of investigation, I shall mention a few of the commonest phases of insanity, and say something of their differential diagnosis.

Let us first take a case in which the excited manner of the patient brings up the picture of acute mania. If now, as is frequently done, we hastily diagnose acute mania, our diagnosis will often prove to be correct, but we will also frequently be caught in error, and this we must try to avoid. A careful history of the patient, if such can be obtained, will soon inform us if we have to do with only a phase of cyclical insanity, or temporary excitement in the course of chronic delusional insanity, and a short period of observation will answer the question whether we have an attack of epileptic insanity before us. After these diseases have been excluded, we must differentiate between acute mania and maniacal excitement in the course, or in the incipiency, of general paralysis. If the latter disease has already made considerable progress, its history will suffice for diagnosis, but a maniacal attack in the incipiency of general paralysis may be difficult, even impossible, to diagnose; at least a careful examination is necessary for that purpose.

The age and sex of the patient may assist somewhat in diagnosis, general paralysis rarely occurring before twenty-five years of age, acute mania often at an earlier period; general paralysis occurring chiefly in males, acute mania about equally in the two sexes. But the diagnosis must rest mainly on the presence or absence of certain physical signs so common to general paralysis. The knee jerk is often absent, and spinal myosis present in general paralysis, even at an early period; these symptoms must, therefore, be sought for. Tremor of the lips and tongue, slight facial paralysis, indistinctness of articulation, etc., occur in the course of general paralysis, and are therefore to be sought for, though they may be absent at an early period.

If all the diseases mentioned can be excluded, acute mania should be diagnosed and a favorable prognosis given.

Let us next take a patient who presents the morose aspect of melancholia for our study. This may be presented in almost any form of insanity, but we will only consider a few of the most common diseases, those which must be borne in mind whenever such appearance is manifested.

Cyclical and epileptic insanity, imbecility, and the different forms of chronic dementia can be easily diagnosed or excluded if any history is attainable. General paralysis must also be thought of and the signs looked for. Finally, there remain for special consideration chronic delusional insanity, melancholia, and the mental dedepression often attending neurasthenic states. In chronic delusional insanity the state of despondency is directly due to the patient's delusions. He is persecuted by his enemies, he is kept out of his high estate, etc., and such treatment makes him despondent. In melancholia the despondency is the direct product of the disease. There is primary emotional disturbance. In the mental depression of neurasthenia there is a combination of these two conditions; there is a sense of depression or despondency directly produced by the disease, while the melancholy state is increased by the patient's brooding over his nervous symptoms.

So, as regards these three diseases, the recognition of the cause of the melancholy state of mind usually suffices for a diagnosis. In addition, it is to be remembered that in the neurasthenic states referred to the patient does not usually pass completely over the border line into well-marked insanity; that in melancholia the patient's delusions are of a self-denouncing character—he has committed a great sin, he is being persecuted deservedly, etc.; while in chronic delusional insanity the ideas of persecution, etc., are based on a kind of reasoning.

As regards the differential diagnosis, we must mention, also, that the prodromal period of mania may assume a melancholy phase, just as there may be an excitable period in the beginning of melancholia.

We will now take another common manifestation of insanity, that usually termed delirium of grandeur. The patient believes that he is fabulously wealthy, belongs to the royal family, etc., or, if a female, that she has very fine dresses, jewels, etc. I have selected this phase of insanity for our study because it, like the other two phases already spoken of, often leads the physician to an immediate diagnosis without further study of the case, a diagnosis which is, also, often erroneous. The diagnosis here made is general paralysis of the insane.

The delirium of grandeur is found mainly in acute mania, general paralysis, and chronic delusional insanity or paranoia. In acute mania the grandiose ideas are the result of the exalted feelings and intensified personality of the patient, which are fundamental emotional states in that disease. It is often difficult to distinguish the disease at this period from general paralysis, and mistakes are made, even by psychiatrists. But if the diagnosis cannot be made immediately, it will soon be made manifest by the course of the disease.

In general paralysis the delirium of grandeur is distinguished by its being altogether without logical foundation. If the patient believes that he has become immensely wealthy, or assumes regal honors, he can give no reason for his belief. It is based on no reasoning. The thought occurred to him and is immediately accepted as a fact. His delusions are the mere expression of a vagrant fancy, and are characterized by their senselessness and variability.

It is quite different with the grand ideas of chronic delusional insanity or paranoia. The ideas have always a logical basis, though the reasoning is false. If such a patient believes himself to be of royal lineage, the belief has probably arisen in this way. He first believed that people were observing and following, and finally persecuting him; then, by another train of thought, he discovered that it was on account of his high birth that he was thus distinguished.

Corresponding with their different manner of development, we find that the delusions of the paranoiac are fixed, while those of the paralytic patient are variable.

Besides these characteristics of the delirium of grandeur, we must seek for the distinguishing features of the two diseases, to assist in diagnosis. In general paralysis a degree of mental weakness is usually manifest at an early period, and there are the somatic symptoms already mentioned. In paranoia a careful history will usually reveal mental symptoms of long standing, and very frequently, also, hereditary disease in the family; while a physical examination may reveal anomalies in the shape of the skull, or other bodily defect significant of a defective nervous system.

I have attempted in the preceding remarks merely to emphasize the fact that the manifestation of one phase of insanity, however characteristic it may seem, should bring to our minds not one disease, but a number of diseases, and that a diagnosis should be made only after careful study of the case. Perhaps I might add, without making too strong a statement, that certain conditions, causative factors of disease, should never be out of our mind when approaching a case of insanity, such as syphilis, and certain toxic agents, as alcohol, opium and cocaine. Just as in general medicine the physician must always keep in mind malaria and syphilis, lest he overlook them in the individual case to the detriment of his patient,—for the symptoms are sometimes obscure, and in themselves might not turn the thoughts in that direction,—so in insanity must we bear the above conditions in mind lest they be overlooked to the injury of the patient.

Syphilis most commonly produces dementia like that of general paralysis, or in other cases of organic disease of the brain; and, when thus manifested, does not offer a favorable prognosis. But in some instances it is rather the indirect cause of the mental disease, and has not yet produced structural alterations of the cerebral tissues, so that the symptoms readily yield to proper treatment.

We often find a typical picture of chronic alcoholic insanity, tremor and more or less paresis, with gastro-duodenal catarrh, loss of will power, delusions of persecution, often of marital infidelity, hallucinations of a terrifying nature, and, not uncommonly, amnesia. Here a diagnosis is readily made. Alcohol also lays the foundation of many forms of insanity, as general paralysis and dementia from organic disease, and may also be the cause of attacks of acute mania and melancholia. But it may be the cause of mental disease when least suspected. Very recently I had a case in charge which, for months before I saw it, presented mental symptoms of a character pointing to the existence of an incurable mental disorder. It was some weeks after the case came in my hands that it was discovered that the patient was a secret drinker, when enforced abstinence from drink was followed by the disappearance of mental symptoms. Neither the position of the patient—the respected wife of a man of prominence—nor the symptoms aroused a suspicion of this kind. The only feature of the case which might have given rise to such a thought was her ill-will toward her family and physician, often increased to quarrelsomeness, which was much more pronounced at some times than others.

The mental disorder produced by cocaine presents a clinical picture which has only lately made its appearance. In these cases there are often delusions of persecution quite like those of paranoia. I wish at a future time to speak more fully on this subject in connection with the report of a few cases of considerable interest.

I will not occupy your time longer with these desultory remarks. I wished especially to call your attention to the necessity of more than superficial observation in making a diagnosis, if the latter should be correct. A correct diagnosis is not only essential for a correct prognosis,—often of much consequence to the family,—but is also very frequently of much consequence to the patient, especially where it points out causes and condition of disease which are remediable. To arrive at a correct diagnosis the physician must learn to study the mode of thought of his patient, as well as the content of those thoughts, and must always remember to make a careful physical examination. To arrive at these necessary data he must learn how to properly approach his patient in his personal examination, for as his shrewdness and tact may enable him to do this well, will be his success in gaining the desired information.

THE TREATMENT OF TETANUS.—We are told by *Chambers's Journal* that Prof. Renzi, of Naples, has treated successfully several cases of tetanus, by absolute rest for the patient. This absolute rest does not mean simple release from labor, but includes rest for the several senses, as well as for the body. The ears of the patient are closed with wax, the room is darkened, and the floor is heavily carpeted. Every fifteen minutes the nurse enters with a shaded lantern to attend to his wants, and to adminster food such as eggs, milk, and other fluids. Nothing solid or requiring any attempt to masticate is given. Sedatives are administered as required to relieve pain. It is said this treatment shortens but little, if any, the length of the disease, but it lessens the force of the paroxysms, which gradually cease altogether.—*Canadian Practioner.*

A CASE OF ACUTE BRIGHT'S DISEASE COMBINED WITH PURPURA HÆMORRHAGICA, IN A BOY TEN YEARS OF AGE.

By O. S. Mills, M.D.,
Cincinnati, O.

During the spring and summer of 1888, while practicing at mines on the Kanawha River, it fell to my lot to treat quite a number of cases of an epidemic form of dysentery.

One evening a man came to my office and wanted some medicine for his little boy, who he thought had the flux. I asked him how long the boy had been sick, and he told me he was first taken sick about two weeks before, and he had called in Dr. J., who diagnosed the case as one of flux, left some medicine, made several visits altogether, and under his treatment the boy grew better, but did not recover entirely.

In the meantime this doctor had gone away, and the disease had returned. As I was the nearest physician, he had come to me for medicine. He did not seem to think that the boy's trouble was serious enough for me to visit him, so I prepared some powders of ipecac et opii, with subnit. bismuth, gave him directions for giving the medicine, and the man went away.

He came back, however, the next day but one, and wanted me to go and see the boy. I went, and in the course of my examination noticed that the boy's extremities and buttocks were covered with spots of a purple color. I inquired whether Dr. J. had noticed the spots, and the parents of the child said he had, but that they were not as bad then as now. Dr. J., however, could not explain them, saying "that they looked more like birthmarks than anything he could think of." On further questioning I learned that the patient had had considerable hemorrhage from the nose as well as bowels. I immediately diagnosed the case as one of purpura hæmorrhagica, and prescribed tr. chlorid. iron in fifteen to twenty drop doses three times a day (for my patient was very anæmic), and fl. ext. ergot, one-half to one drachm doses three times a day for the hemorrhage; also ordered nutritious diet. Under this treatment my patient seemed to grow better: his appetite improved and the bleeding ceased, but I noticed that his pulse still remained weak, as it was when I first examined him; and further, that he did not pass quite a normal quantity of urine. All the patient complained of was a feeling of weakness. I supposed it was due more to his anæmic state than anything else, and continued with the iron but stopped the ergot.

I had not been to see him for several days, and when I did call saw at once that my patient was worse; his feet and ankles were swollen, the swelling pitted under pressure. I at once suspected kidney trouble. His parents told me that since my last visit the amount of urine passed by the boy was quite small. Procured a sample of his urine; testing it by both the heat and nitric acid test found large quantities of albumen present. Ordering a strictly anti-albuminous diet, I prescribed tr. digitalis. My patient steadily grew worse. In a very few days the dropsical accumulation was very great; his extremities, body, and scrotum were swollen enormously. I then ordered a hot bath to be given every night, afterward wrapping the patient up in blankets and allowing him to lie and sweat for several hours. Gave up the tincture and prescribed

℞ Infus. digitalis, . . ℥ vi;
Acet. potass., . ℥ iss.—M.

Sig.: One teaspoonful three or four times a day.

Also administered a cathartic every evening in the shape of bitartrate potass., with occasionally a few gr. jalap. Under this treatment my patient gradually grew better; his heart took on a better action, and the flow of urine was increased.

I have neglected to state before that at times when the dropsy was very great, interfering with respiration, I used hypodermic injections of mur. pilocarpin, gr. ⅛, which was always followed by profuse diaphoresis and salivation lasting several hours. The use of the drug was never followed by weakness of any kind, and always had the desired effect.

I was first called to see my patient the 6th of August, and dismissed him from my care the early part of the following October entirely free from the disease and in appearance strong and healthy.

In treating the dropsy of Bright's disease I think we can put a good deal of reliance in the prolonged use of hot baths and hypodermic injections of pilocarpin.

Remembering that the symptoms of kidney trouble did not appear until after this case had been diagnosed as one of purpura hæmorrhagica, I will close by asking a question: Was the purpura a complication of the nephritis, or was the kidney affection secondary to the purpura?

East Walnut Hills.

ANTIFEBRIN IN QUINSY.—In the *Wiener Medizinische Blätter* for August 8, 1889, Dr. W. Sahli writes that on the second day of a violent attack of quinsy he took 7 grains of antifebrin, and within a quarter of an hour all headache and pain on swallowing or in mastication had completely disappeared. On the next day there was a slight return of pain, which was again almost immediately subdued by the repetition of the dose of antifebrin, and this treatment was continued on each reappearance of pain with the same results, until the disease had run its course.

Dr. Sahli refers to twelve cases of quinsy in which 4 grains of antifebrin likewise produced satisfactory results. The same effect was also observed by the writer in the relief of pain in angina of an epidemic of scarlet fever and diphtheria. It relieves pain in all movements of the throat, and, by rendering the operation painless, is a great assistance to gargling the throat, especially in children, while, of course, it also assists in the administration of food.

Dr. Sahli does not, however, claim that antifebrin is a specific for angina or diphtheria, since the pathological processes are not influenced by its administration. He administers it shaken up in a little spirits and syrup.—*Therapeutic Gazette.*

A NEW SOURCE OF SUPPLY OF PODOPHYLLUM.—It is said that the May-apple grows in great abundance in the Himalaya mountains, and that it is very much richer in podophyllin than the American plant, the amount of resin which can be extracted from it being nearly three times larger than that from the podophyllum of this country.—*Druggists' Circular.*

SAMPLES of Sander & Sons' Eucalypti Extract (Eucalyptol), gratis, through Dr. Sander, Dillon, Iowo. Eucalyptol stands foremost as a disinfectant, is a perfect check to inflammatory action, and invaluable in zymotic diseases.

Society Reports.

ACADEMY OF MEDICINE.

OFFICIAL REPORT.

Meeting, October 21, 1889.

The President, WM. JUDKINS, M.D., in the Chair.

G. A. FACKLER, M.D., Secretary.

Discussion on Tuberculosis of Joints.

DR. LEONARD FREEMAN presented a microscopical specimen showing tubercle bacilli in pus obtained by the aspiration of a chronic swelling of the knee-joint.

König and other eminent surgeons state that the bacillus of tuberculosis is not often found in the fluid from tubercular joints. This is undoubtedly true; but, nevertheless, the bacillus does occur in quite a number of cases, and may at times materially assist in making a differential diagnosis. The specimen presented was from a case in Dr. Ransohoff's service in the Cincinnati Hospital, and was examined at the request of that surgeon.

Tubercle bacilli found in joints are apt to differ from the typical forms found in the lungs, and without due regard to this difference we may at times be led astray. As found in joints, the bacillus may be short and thick, lancet-shaped, clubbed on the ends, or bent out of shape in various ways. Again, it may be of the ordinary shape, but broken up into dots—indicating, perhaps, the formation of spores. The bacilli in the specimen shown are of this last variety.

Dr. Oliver and Dr. Freeman succeeded, a short time since, in detecting the bacillus tuberculosis in six cases of joint tuberculosis.

DR. RANSOHOFF wished to state that the procedure adopted in the case was directed by the results of the microscopic examination. The patient was a man thirty years of age, and in perfect health until a year and a half ago, when there developed in him an acute myelitis. He was removed to the Infirmary, and there disease of the knee appeared. When seen by the speaker the joint was three inches larger in circumference than its fellow on the opposite side. It was associated with disease of the joint surfaces, and the question arose whether he was dealing with sarcoma, Charcot's disease accompanying posterior spinal sclerosis, or tuberculosis. Every indication pointed to the latter condition, and the diagnosis was rendered sure by the discovery of the bacilli.

Dr. Evans thought that, on account of the rarity of finding the tubercle bacillus in such fluids, one would not have been warranted in excluding tuberculosis, even if the bacillus had not been found. Again, we must remember in an examination of the membranes that there are two stages to the disease: The first, when the tissues are filled with bacilli; and the second, in which we must search long and carefully in order to find the bacillus.

Dr. E. W. Mitchell reported a case of and presented a patient with

Empyema.

John L., æt. 32 years, laborer. One sister died of phthisis; family history otherwise good. In November, 1887, he came under the observation of the reporter with a large accumulation of fluid in the left pleural cavity, the increased measurement of that side being five-eighths of an inch. The heart was pushed to the right, apex beat being plainly seen and felt one inch to the right of the right nipple line; pulse 100 to 120 per minute; absolute flatness over the whole left lung; vesicular murmur entirely absent. Patient greatly emaciated; had a cough; was apparently *in extremis.* Aspiration with a hypodermic needle showed fluid to be purulent. By the aspirator seven pints of pus were drawn off in two aspirations, at intervals of a few days. The lung re-expanded only at the apex. There was but little change in the heart's position, it being, apparently, bound by adhesions in its new site. He gradually improved and became able to do light work, such as driving a cart. He had been lost sight of and not examined for over a year past. He now has evidently an accumulation as great as before. The heart is beating to the right of the right nipple. No air enters the left lung. There is now some consolidation in the right lung—probably tubercular deposits.

Dr. Kiely read a paper on

Pleuritic Effusions (see p. 595).

DISCUSSION.

Dr. E. W. Mitchell did not claim his case to be of the same character. He had presented it to show several features worthy of notice. It certainly illustrates the uselessness of aspirations when there is a collection of purulent fluid. Aspiration was performed in this instance because any other procedure was objected to. He bore both aspirations well, and felt so much better after the second that he declined to submit to any more radical interference.

It illustrates also the enormous accumulation of fluid and the great displacement of the heart that may occur with the patient still able to be about, as this man was, most of the time. This man, according to his statements, has no chills or fever. He has not been examined for a year and a half until this evening.

Dr. Ransohoff spoke of serous effusions simply as to prognosis. He had seen three cases of pleurisy in which the fluid withdrawn was clear, and these patients went down with pulmonary tuberculosis. In Dr. Mitchell's case the fate of the patient is sealed. Had he been operated upon two years ago the chances for recovery would have been fair. The speaker had opened the chest of fifteen or sixteen such patients, and lost only those in which the disease was pronounced tubercular. If this patient's chest be opened to-day, scarcely any chance for recovery could be offered. There is scarcely a possibility of the lung again expanding. By a simple incision he would probably be brought down more rapidly than if left alone, and the case is too old to expect a sinking in of the chest wall. The only plan that might do good would be the exsection of portions of three to five ribs. There is a good reason why there is no fever. A membrane has been probably formed like a bag about the fluid and prevents absorption.

Dr. Evans stated that Gerhart, in Berlin, speaking of Ehrlich's investigations, claimed that in fifty cases of simple idiopathic pleurisy three were found in which the tubercle bacillus could be demonstrated.

Dr. Kiely agreed with Dr. Ransohoff as to the danger of operating if tuberculosis existed. He was almost convinced that in his third case the disease existed. He had seen very few cases of purulent effusion, and such patients were all tubercular and died. Of these cases he imagined ninety-six per cent. to be tubercular unless of very long standing, because he could not perceive how an acute inflammation could become purulent in two or three weeks unless it be of tubercular character.

Dr. Ransohoff reported a case of purulent accumulation in the pleuritic cavity of three years' standing. The heart was beating upon the right side. The chest was opened on the left side and a portion of three ribs exsected. Within twenty-four hours the apex beat had returned to the left side. The cavity still remains, but the man's general condition and weight have improved, although the opening is still discharging.

Dry Operations have been lately advocated by Landerer, of Leipsic, amongst others. His reasons for rendering operations as dry as possible are not without weight. He points out that the employment of all sorts of antiseptics may be dangerous under certain conditions, and that it is advisable to avoid them as much as possible. The employment of sterilized fluids in large quantities is inconvenient and messy, and there are many advantages in keeping the field of operation quite dry. The essential part in the dry method is immediately after the first incision to keep every part of the operation field, not for the moment under the knife, under pressure by means of antiseptic gauze; dry sublimate gauze is what he recommends. By this means the wound can be closed more quickly as the plugging will have arrested the bleeding, and drainage will frequently be avoided altogether. The suturing then takes place, after which a moderately firm compress is applied. In this way the patient is less messed and cooled, there is less loss of blood, and above all no germs can enter from the moment the plugging is applied. The bleeding is more quickly arrested, and the duration of the operation is shortened, whilst at the same time healing is rendered more rapid and certain.—*Medical Press and Circular.*

He Missed the Mark.—Young physician (to patient): "What you need is exercise, sir. You should walk more."

Patient (reaching for his pocket-book): "How much, young man? I was walking all last night with the baby."—*Weekly Medical Review.*

SOCIETY NOTICES.

Academy of Medicine.—

December 2, Dr. J. J. Kane will read a paper on "Gunshot Wounds of the Hip-Joint."

Cincinnati Medical Society.—

December 3, Dr. Wm. Carson will report cases of "Alleged Hydrophobia" and "Hypertrophic Cirrhosis."

FOR SALE.

FOR SALE.—In western Indiana, with lucrative practice, for sale a good two-story frame dwelling, containing twelve rooms, in good repair. The lot without improvements would bring cash $2,500. Improvements, at lowest estimate worth $2,500. Healthy neighborhood, and one of the best in the city. City contains 12,000 inhabitants, is a railroad centre and is improving, having water, gas, and electric works, etc. Will take $4,000 in easy payments. Cause for selling—wish to retire.

3 Address, S. Care of Lancet-Clinic office.

FOR SALE.—A lucrative established practice for sale, with good two-story frame house and office, stables, etc., all in good order. Possession given immediately upon sale of premises, and good will of practice to go with sale. Terms reasonable. Cause for selling—wish to retire.

Address, Dr. C. T. McKibben, Moscow, O.
Or Lancet-Clinic office. tf

FOR SALE.—In western Ohio, property worth $1,500, with practice worth from $1,800 to $2,500 annually. All for $1,200. In a small railroad town of about 200 inhabitants. Best of gravel roads. All main roads are free pikes. Good reasons for selling. No opposition in practice.

Address, J. K., Care Lancet-Clinic.

FOR SALE.—$3.000 cash practice. A fine location in Colorado. No competition nearer than twelve miles. Resign office of Coroner and Surgeon to 800 miles of railroad. Delightful roads, fine climate. Owner has interests elsewhere and must change.

5 Address, Box 8 Elbert, Colorado.

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A fee of $5.00 will be charged for such examinations.

Leonard Freeman, M.D.,
J. C. Oliver, M.D.,
Otis L. Cameron, M.D.,
Oliver P. Holt, M.D.,
Curators and Microscopists.

Are prepared to make examinations of river water, milk, etc., for the typhoid bacilli.

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DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, November 30, 1889.

The Week.

CINCINNATI CHARITY HOSPITALS.

The largest and altogether most important of these institutions is

THE CINCINNATI HOSPITAL.

This great charity is located in the centre of a dense population and very near the geographical centre of the city, with a large capacity for the accommodation of patients suffering from every possible ailment or accident. There are at this time more than three hundred patients in the main hospital. Fortunately, the superintendent reports the "Branch" or small-pox hospital, located in an extreme outer district, as empty.

Captain T. E. H. McLean, the present superintendent, has been connected with the hospital for about twenty years, and is regarded as the right man for the place.

The staff is large and embraces many of our most prominent physicians.

Within the hospital there has recently been erected a very large amphitheatre for clinical teaching and lectures. This is open to all students of all the medical colleges, and constitutes at present the Medical Department of the Cincinnati University.

The ward attendants are trained nurses, and in the teaching arrangements is embraced a course for the nurses' training school. This is in successful operation.

THE GOOD SAMARITAN HOSPITAL.

This well-known charity hospital is located on East Sixth and Lock Streets, and is the successor of St. John's Hospital that was for many years on the corner of Third and Plum Streets.

The Good Samaritan is owned and conducted by the Sisters of Charity, an order of sisterhood in the Catholic Church. So fully have they had the confidence of the people generally, that they have had little if any difficulty in always obtaining from the charitably disposed ample means to carry on the work of caring for the sick poor that are continuously brought to their doors for treatment.

The commodious buildings and grounds were the donation of Messrs. Butler and Worthington, two gentlemen who were not members of the Catholic Church, but who were impressed with the practical good the sisters were doing with the limited means at their disposal.

This hospital has about one hundred and fifty beds for the sick poor.

In connection with the Good Samaritan is a very large amphitheatre for clinical lectures and teaching. This for a number of years has been the main clinic ground for the faculty and students of the Ohio Medical College, the attending staff being almost wholly made up from the faculty of that college.

The fame of this particular sisterhood as nurses is co-extensive with our entire Western Country. A branch of the Good Samaritan Hospital is located beyond the city limits, and is conducted by the Sisters of Charity as a foundling asylum.

THE GERMAN PROTESTANT HOSPITAL,

At 137 East Liberty Street, was opened about a year ago under the auspices and government of the German Protestant Churches, and meets a want in the northeast part of the city. The location is in the immediate vicinity of several German Protestant Churches and surrounded by a very dense population of working people. More commodious quarters are needed.

Drs. Gustav Zinke and H. W. Rover are the attending physicians.

The attendants are a sisterhood of Protestant deaconesses, consecrated women who are making this their life work; they also hold themselves in readiness to go out in private families to nurse and care for the sick, give massage treatment, and assist at surgical operations.

The same church organizations that sustain this charity also support the great German Protestant Orphan Asylum in Mount Auburn, a city suburb. Their hospital will very soon assume corresponding proportions.

THE UNITED STATES MARINE HOSPITAL.

The National Government has established at the corner of Third and Kilgour Streets a commodious hospital for the accommodation of the river men, a large number of whom make this city their home. Owing to the peculiar and constant exposure of their service, as well as the dissipation of many, a large number are always to be found within its wards, where good attention, good food, and comfortable quarters soon effect a restoration to health; whereas, without this sustaining of nature's powers a speedy death and a pauper's grave would be the sequel.

The Marine Hospital is now in charge of Dr. Wm. H. Long, one of the oldest and, we are pleased to say, one of the ablest men in the corps of U. S. Marine Hospital Surgeons.

THE PROTESTANT EPISCOPAL FREE HOSPITAL FOR CHILDREN

Is located on Mt. Auburn. This is comparatively a new hospital, built entirely at the expense of Mr. Thomas Emery, and in memory of a deceased child. If there is any one thing more than another that touches a sympathetic cord within us, it is a memorial stone of this character. Though dead, the affectionate memory of the parents of a little child enables them to bestow comfort, health and joyful happiness on generation after generation of unfortunate little ones.

This hospital is large and is doing a good work. Dr. Wm. Carson is the chief of staff and gives much of his time to its supervision, while the ladies of the Protestant Episcopal Church support the charity.

ST. MARY'S HOSPITAL,

At Betts and Linn streets. This is second in size to the Cincinnati Hospital, and easily accommodates three hundred patients. It belongs to and is under the care of the Sisters of the Poor of St. Francis, an order of the Catholic Church. This charity has been in existence for a third of a century, and has grown from quite a small beginning to the proportions of a very great institution. In fact, two years ago this order of sisters felt the necessity of erecting a branch in the extreme northwest part of the city on Lick Run. This new hospital, named St. Francis, is in its plans and arrangements for the care and comfort of the sick one of the most complete institutions it has ever been our good fortune to visit. The architect, Mr. Geo. W. Rapp, deserves the greatest credit and praise for his skillful preparation of the plans and specifications.

This hospital will also accommodate three hundred patients. Dr. W. H. Wenning is President of the staff; under his direction and supervision, in connection with the competent care of the sisters, a world of good is done for the sick and suffering poor.

Our only regret in connection with this great charitable institution is that it has never been opened for clinical instruction to medical students. While accepting the free services of a staff of our very ablest physicians and surgeons, it should not close its doors to the bedside instruction of those who in after years will become the professional attendants in its wards. In this the Sisters of St. Francis are inconsistent and do not do themselves justice. The attending staff have time and again urged a change of policy in this regard, but thus far without success. They, however, still hope to be favorably heard, and obtain this very reasonable concession.

THE OHIO HOSPITAL FOR WOMEN AND CHILDREN

Is at 325 West Seventh street. This institution enjoys the distinction of being the only charity hospital in this city where the attending physicians are of the Homeopathic faith. In its creation and management the guiding mind and hand of Dr. Ellen Kirk has been constantly felt. Only female physicians have a place on its staff. The hospital is well supported by the enthusiastic defenders of the faith of Hahnemann, and its beds are usually full.

IN ADDITION

To the above, there are in this city a goodly number of private hospitals, conducted entirely for the benefit of their owners and patients who are in circumstances that enable them to pay for all needed professional and other attendance. It is believed that better results from professional treatment can often be obtained in such hospitals than in the homes of the afflicted.

There are also a number of large charities and public institutions that have hospital wards attached or in connection with them, but the above is sufficient to give a wide glimpse at the amount of needed charity work that is constantly going on in support of the helpless and poor that are always found in a great city.

A gratifying characteristic is noted in the fact that this work is nearly all done under the auspices and with the support of Christian Churches, and that with the exception of the professional attendance of physicians it is all done by women: tender and holy, gentle and loving women—true ministering angels.

ELECTRIC LIGHT AND POWER WIRES.

The world has had an object-lesson this week in having presented to them the gleaming picture of a fire in the solidly-built city of Boston that destroyed several million dollars worth of property and a number of lives, all of which was caused by the contact of an electric light wire with one that was used for regulating the time of a number of clocks.

There is a demand for electric light as an illuminating agent, but a few Boston fires will greatly curtail the desire. In our own city, during the past few days, the electric light companies have literally taken possession of the streets, and lines of their poles are seen in every direction. The city authorities should forbid the stringing of a single light wire on them, but require the placing of them in underground conduits. It is now a dangerous thing to touch a wire of any kind, and we have come to regard the telephone with its wire as a dangerous instrument.

An electric light or power wire, by any unforeseen circumstance that will throw it in contact with a telephone wire, may start a Boston conflagration. And this is most likely to occur in business offices after the occupants have closed up their day's work, leaving everything in supposed security.

The only solution of this is the building of underground conduits, either by the electric corporations or by the city, the latter in such case charging the companies for their occupancy.

In any arrangement that may be adopted, skilled electricians must, as inspectors, be kept constantly on the alert in order to prevent accidents and fires.

This city has thus far escaped a great disastrous conflagration, but the indiscriminate stringing of light and power wires brings us uncomfortably near the ragged edge.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending Nov. 23, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st							2	1			
2nd	1		1								
3rd							3				
4th							1			1	
5th			2	1	1		1				
6th								3			
7th							2				
8th	5										
9th	1						6				
10th	1				1		4			1	
11th	1						4	1			
12th				1			1	1			
13th							2				2
14th							1				
15th								1			
16th					1						
17th							2				
18th	9						2				
19th	6						2				
20th							3				
21st							2				
22nd			1				3	2		1	
23rd			4	1	4		5	2			
24th	1										
25th											
26th							1				
27th	1							1			
28th	1			1			1				
29th											
30th							7				
Cin. Hosp.											
Betts-street Hospital											
Marine H.											
Totals	27	..	8	4	7	..	55	12	..	2	2
Last week	13	..	5	..	5	1	79	10	...	3	1

The following is the mortality report for the week ending November 23, 1889.

Alcoholism	1
Croup	2
Diphtheria	12
Scarlatina	4
Typhoid Fever	3
Other Zymotic Diseases	3—25
Cancer	2
Phthisis Pulmonalis	12
Other Constitutional Diseases	8—22
Apoplexy	1
Bright's Disease	2
Bronchitis	7
Convulsions	2
Heart Disease	5
Liver Disease	2
Pneumonia	11
Other Local Diseases	24—54
Old Age	3
Other Developmental Diseases	4— 7
Accidental	4
Suicidal	2— 6
Deaths from all Causes	114
Annual death rate per 1000	18.24
Deaths for corresponding week in 1888	84
Deaths for corresponding week in 1887	144

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 34 observers for the week ending November 22, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Tonsillitis	17	28
Bronchitis, acute	14	33
Typhoid Fever	11	17
Pneumonia	10	13
Diarrhœa	10	13
Rheumatism (acute)	8	11
Intermittent Fever	7	14
Diphtheria	7	12
Remittent Fever	5	16
Measles	5	12
Scarlet Fever	4	7
Erysipelas	4	4
Pleurisy	3	3
Typho-Mal. Fever	2	3
Consumption (Pul.)	1	1
Cholera Morbus	1	1
Whooping Cough	1	1
Puerperal Fever	0	0
Dysentery	0	0
Cholera Infantum	0	0
Croup, membranous	0	0
Cerebro-Spin. Men.	0	0

REMARKS.

Diphtheria reported by observers at Albany, Prospect, Moscow, Clearport, Rocky River, Elmore, and Maineville. Reported by health officers: Columbus, 14 cases, 4 deaths; Toledo, 28 cases, 7 deaths; Xenia, 6 cases, 1 death; Lancaster, 8 cases, 3 deaths; Ashley, 8 cases, 2 deaths; Youngstown, 5 cases; Springfield, 5 cases; Akron, 1 case; Middletown, 1 case; Fostoria, 6 cases; Felicity, 1 case; Defiance, 1 case; Utica, 1 case.

Scarlet Fever reported by observers at East Cleveland, Elmore, Blanchester, and Canal Dover. Reported by health officers: Columbus, 5 cases; Toledo, 2 cases; Springfield, 1 case; Youngstown, 7 cases; Akron, 2 cases; Martin's Ferry, 2 cases; Painesville, 1 case; Wooster, 1 case; Fostoria, 7 cases; Urbana, 2 cases; Ravenna, 5 cases, 1 death.

Typhoid Fever reported by observers at Moorefield, Sandusky, Independence, Gillespieville, Plain City, Kalida, Lewisville, Albany, Prospect, Blanchester, and Rocky River. Reported by health officers: Springfield, 4 cases; Norwalk, 1 case, 1 death; Middletown, 1 case, 1 death; Youngstown, 1 case, 1 death.

Zanesville, Wellston, Warren, Bainbridge, Kent, Ansonia, Bellaire, and Salem report no cases and no deaths. Cleveland and Dayton not heard from.

At Orphan's Home at Xenia there have been 142 cases of Scarlet Fever with 1 death, 38 cases of Diphtheria with 8 deaths. Epidemic now under control.

C. O. PROBST, M.D., Secretary.

A NEW TEST FOR ALBUMEN IN THE URINE.—Trichloracetic acid is stated by M. Boymand in the *Répertoire de Pharmacie* for the present month to be the best reagent for the detection of albumen in urine. It is more reliable and possesses none of the disadvantages of the ordinary tests, such as nitric acid and metaphosphoric acid. It has also the power of precipitating that peculiar form of albumen which is thrown down by heat but redissolved on the addition of acetic acid. Trichloracetic acid is obtained by the action of chlorine gas upon acetic acid, three atoms of the hydrogen of the radical acetyl being replaced by chlorine. The compound is represented by the formula $CCl_3CO.OH$. It is a crystalline solid body, very soluble in water, and it forms salts analogous to the acetates. Acetic acid may be regenerated from it by the action of nascent hydrogen. The test may be used in a solid form or in solution. If the solid be employed, a small fragment is placed in a test-tube containing the urine; it sinks to the bottom and is dissolved, producing a cloudiness, or, with very clear liquids, a zone of cloud. The solution can be used either saturated or fairly concentrated. When poured upon the urine to be examined it forms a characteristic ring, like that obtained by means of nitric acid, but without producing any coloration. When the urine is rich in urate of soda it is better to dilute with distilled water, and thus avoid a cause of error which is common to all reagents. We have not been able to obtain a specimen of trichloracetic acid for the purpose of verifying the statements made respecting it as a precipitant of albumen in urine under all conditions, but we hope to do so in a short time, and to report the result of our experiments.—*British Med. Journal.*

HIS OFFICE HOURS.—Patient: "When can I speak to the doctor alone?"

Landlady: "Come at his office hours, between two and three—he is always alone then."—*Courier Record of Medicine.*

Miscellany.

PARISIAN MEDICAL CHIT-CHAT.

"Feuilleton" of the *Journal de Medecine de Paris.*

TRANSLATED BY T. C. M.

Ricord is no more, but syphilis still exists. Ricord, that incomparable practitioner, that rare spirit who, to the profound love of science and accuracy of observation added that cool energy so necessary to a specialty so fertile in objects of repugnancy and disgusting spectacles—a specialty in which he obtained celebrity, and afterwards with his wonderful intellect was master of his art. Ricord is dead, and in his ninetieth year, disappearing while still active in the midst of an aureola of glory that no new sun will pale for many years to come.

What an object of astonishment and admiration was this great man, who, in the midst of learned lectures and dissertations on syphilitic phagedenism, on soft and hard chancres, employed, turn by turn, a marvelous amount of sagacity interspersed by brilliant flights of rhetorical wit and humor; he who has added many adorable *morceaux* of fantastic epigraphs to French medical literature, as, for instance, that famous one where, sending his photograph to a friend, he wrote, "Many gentlemen possess my autograph, but few dare to show it"; and again, that facetious biographical article destined for a "Dictionary of Celebrated Medical Contemporaries," where we read: "Ricord, *savant*, whose researches have rectified an error in mythology—a physician who has demonstrated that it was not Vulcan but Mercury to whom Venus was married."

This genius Ricord was an American born; he came to us from that very America where, if we are to believe certain authors, we imported our French pox towards the end of the fourteenth century. He sought to cure us of syphilis when it was only called by the name of plain pox. He was master of the art of curing syphilis—that disease that spreads such terrors among men; an affliction disseminated by the God of Love; a malady for which all nations blame their neighbors, for they still call it the "French Disease" at Naples and the "Neapolitan Disease" in rural

France; that pest whose real origin is in fact unknown, which may perhaps have existed since the most remote periods of time in Europe, if we are willing to believe (and I am willing to believe him) Dr. Buret, who declares this to be true in a late humorous "Syphilographical Dialogue." If indeed the American etiology of syphilis be exact, is it not likewise worthy of remark that the same magnificent country likewise sent us a man who, if he did not bring a definite system of therapeutics, at least gave us a more efficacious treatment for the affection than had ever been known up to his time?

Ricord was born in Baltimore in 1800. He studied medicine at Paris and graduated as Doctor of the Faculty of Paris in 1826, after which he went to practice his profession in the Department of Loiset, and returned to Paris to commence a brilliant medical career in which he was only carried off by death, for though old in years he was still youthful in his feelings and a man of unbounded physical activity. Ricord was a man who never lost his good humor in the presence of the saddest pictures of human degradation; he saw daily a crowd of rotten and disgraced humanity file past his chair and never was anything but in gay spirits. In his specialty the art of maintaining good humor and a true philosophy for the frailties of the race is needful. The moral errors of men filled him rather with laughter than tears. He saw the weak side of human life, and his consultations resembled an admixture of studies in romance, pathology, and social morals; he has left on these points a most curious collection of documents, constituting a literary gem for the diadem of modern medicine; he has left an infinity of notes of this nature of a most interesting character—notes that will furnish precious information to the naturalistic writers of a younger generation.

Turning from the subject of Ricord and syphilis to that of magnetic somnambulistic mediums, we notice many eulogies to a new Parisian female healing deity, to whom Mery, among others, indites the following lines:

> "Cheveux flottants sur les epaules,
> A la main faucille d'or,
> Elle nous rend Norma des Gaulles
> Ou la Prophetesse d'Endor."

I think that the unfortunate victims of syphilis could have gained more from Ricord than from this impostor who uses incantations and magic in place of mercury. Yet, after all, why should not magic and faith-cure heal syphilitic as well as hysterical patients, if there be any virtue in such claims. Boileau has said: "Truth can sometimes not be truthful. Why deny anything?" To doubt is always permissible, but to deny is almost always unreasonable, especially as regards scientific matters, as nothing is impossible under the sun, and the "good sense" of which we vaunt is absolutely subordinate to the condition of our knowledge: the thing that but yesterday was deemed Utopia to-day has become a reality.

A Parisian lady, playing cards, recently dropped dead. She lost a bet of twelve sous and thereupon lost her life. A broken heart from a game of chance.

Dr. Magnan, the medical alienist expert of the Police Department, has sent the Biological Society the history of a curious case of monomania. The lady thus afflicted is one of the most ardent members of the "Anti-Vivisection Society" and "Society for the Prevention of Cruelty to Animals." "This lady," remarks Dr. Magnan, "is aged forty years, and suffers sleepless nights on account of the sufferings of animals. She weeps and cannot rest for sympathy for the poor beasts on the street. When a horse falls on the smooth pavement she swoons away. She recently purchased a broken-down cart horse for 150 francs and paid 78 francs a month for five months in order to let the animal die in peace at an old age. She gathered all the infirm dogs in her neighborhood and established a "Dog Infirmary." She made her will in favor of five indigent curs cared for at her home, leaving each animal an annuity of twenty-five francs a month, and, fearing that this sum is insufficient, she now desires to increase the amount. She recently went into the open market and purchased all the live frogs offered so as to keep these hoppers out of the hands of the vivisectionists." Dr. Magnan relates another case of this kind of monomania. This was a lady of thirty-eight years, married and a mother of a family, who loved animals more than humanity; she would not even consent to sacrifice edible animals to save her own child's life. Such monomaniacs as compose for the most part these "Animal Societies" are but slightly affected by the woes and pains of their own human species, but are extremely sensitive to the sufferings of animals. They prefer to devote their time and money to relieving beasts rather than help the poor, sick, and starving work people who ask for a crust of bread at their doors. This particular woman had about a dozen cats, who occupied one of the handsomest apartments in a house, the landlord of which decided the animals should vacate. The woman obliged her husband to throw up a fine position and leave rather than be separated from her cats. She was willing to sacrifice husband and children for animals. This depraved creature still owns six cats, and each day gives them baths and cleans up their ordure, meantime neglecting her proper household duties. Yet another case reported by Dr. Magnan is that of an old maid of thirty-seven, a pronounced vegetarian, who for six months past has refused to eat meat because it was necessary to slaughter animals in order to obtain flesh. She lives now entirely on vegetables and is now engaged in feeding many loaves of bread daily to the dogs of Paris. Pity she could not give it to starving human beings. She spends her time in slaughter houses preaching against the killing of animals for food and denouncing it as cruel murder. "You have no moral right to kill animals," she declares; "they are our brothers and should be protected." She has so annoyed the butchers that she has been arrested on several occasions. As a rule, this variety of monomaniacs end by becoming hopelessly demented, and their monomania has its origin in weak-minded, namby-pamby sentimentalism. A human being is constructed on a very low moral basis when she prefers a misplaced kindness for animals to true charitable work among the sick and suffering humanity that swarms on every hand. Such neuropathic and degenerated persons are, fortunately for the world and mankind, not numerous. The preoccupation of feminine minds with animals will always, sooner or later, lead to evil consequences and a veritable mania. The tension of the mind on one purpose, a fixed idea based on a low moral standard, reaps its own reward sooner or later. Cranky old maids with dogs, and cat lovers, and childless widows with animal affinities, may all be classed in the same category of nuisances.

The realistic school in fiction is vividly depictured in the new romantic novel of "Termite," wherein is a whole chapter describing perfectly the symptoms and treatment of nephritic colic. "Give me aid. I pray for relief!" screams the hero of the story. "Will no one give me an opiate to calm my agony?" The storm approached; the most intense retraction of the testicles ensued, with cramps in the thighs. Then he seized the opiate mixture and swallowed spoonful after spoonful. "My poor Servaise," exclaims the beautiful heroine, "I trust your pains grow less." We must quote no more. The modern novel has reached the acme of refinement when the hero and heroine indulge in testicular fancies of even nephritic origin.

THE DIURETIC POWER OF CAFFEINE WHEN ASSOCIATED WITH PARALDEHYDE.—Impressed by the results obtained by Von Schröder as to the diuretic action of caffeine, Cervello tested the diuretic powers of the combination of caffeine and paraldehyde in the case of a man, forty years of age, suffering from immense intraperitoneal effusion produced by venous congestion from heart disease (*Schmidt's Jahrbücher*, August 15, 1889). As a result of the administration of this combination the amount of urine was more than doubled and the ascites markedly reduced. The same combination was also employed in the case of a man, twenty-two years of age, likewise suffering from œdema and dropsy, as a consequence of heart-disease, and in cases of chronic nephritis with œdema the diuretic action was also very pronounced, and resulted in the removal of the effusion. Finally, notes are published of a case of sero-fibrinous pleurisy with abundant exudation, but with no tendency for reabsorption, in which the combination of paraldehyde with caffeine produced disappearance of the effused liquid. The paraldehyde was given in capsules, 30 to 45 drops in two or three doses at evening, so as to combine the sleep produced by paraldehyde with the natural sleep. Caffeine was given in doses of from four to eight grains. In case of ascites from cirrhosis of the liver, in accordance with general clinical experience, caffeine failed to produce any diuretic effect.—*Therapeutic Gazette*.

TREATMENT OF CANCER OF THE RECTUM.

[*Therapeutic Gazette.*]

At the recent meeting of the British Medical Association (*Lancet*, August 17, 1889), Mr. Jessop, the President of this Section, introduced a discussion upon the "Treatment of Cancer of the Rectum." As regards the treatment of cancer by drugs, his attitude was one of hope and even faith in the future, but absolute distrust in the past. Some Pasteur of the future might yet discover a cure for cancer, but the claims put forward for China turpentine or any other drug rested upon the slenderest of foundations. Cancer never yet was cured, although medicines might give great relief. He passed on to operative treatment of cancer of the rectum. Partial removal was rarely advisable and barely scientific. He would deal only with proctotomy, which, of late, had been forced into prominence by the success of German operators. His own experience was limited to seven cases. One died in a few days; the remaining six obtained a varying amount of relief. All were still alive, one apparently well, at the end of twenty-one months; a second equally well at the end of seventeen months; a third had a speedy return of the disease, which now threatened to end fatally: two others were still well at the end of five months and twenty-six weeks respectfully. In four of the cases the results had been almost all that could be desired, and incomparably better than those of the most exceptional colotomy. He had not yet attempted the removal of cancer when beyond the reach of the examining finger, nor had he advised the operation in any male in whom the disease was seated in the anterior wall of the rectum. In thin, wasted patients access might be got to the disease by expanding the sphincter by a modified Weiss's dilator, but in stout persons it was necessary to cut from the rectum deeply down to the coccyx. Much of the success of the operation depended upon the thorough cleansing of the wound, not only at the time of the operation, but during many subsequent days. In cases in which the disease had originated beyond the reach of the finger, or had crept up to a higher level, he thought the operation unsuitable. He spoke next of colotomy. His opinion was that in cancer of the rectum, obstruction was not much to be feared if the disease were in the lower half, but was almost certain where the upper portions of the rectum are involved. Of fifty-four cases of colotomy taken from his note-book, performed for the relief of distress, and not for obstruction, three only died in the first month. Given the diagnosis of cancer high up in the rectum, the duty of the surgeon is to recommend without delay the formation of an artificial anus. As regards cases of disease affecting the middle and lower portions of the rectum, he found that the average duration of life in those who were not operated on was a little over seventeen months, while that of those who underwent colotomy was twenty-two months and a half. His experience had gradually raised his estimate of colotomy as a means of prolonging life. As regards relief of suffering, his conclusions were that operation lessens pain, diminished the desire to evacuate, prevented incontinence of feces, and reduced the number of motions. He had hitherto only performed the lumbar operation, but he was favorably impressed by the evidence in favor of inguinal colotomy.

GASEOUS CYSTS OF THE NECK. — Dr. L. H. Petit has issued this year an important monograph on these cysts, known to previous authors as "aeroceles," "bronchoceles," "laryngoceles," or "tracheoceles." The monograph has appeared in several numbers of the *Revue de Chirurgie*. Dr. Petit concluded that there existed in the neck air-holding tumors produced by a communication between the larynx or trachea and cellular or interfascial spaces in their neighborhood. The predisposing causes may lie in normal structures, the ventricles of the larynx or the membrane uniting the tracheal rings posteriorly, or in anomalies of those structures, or in pathological changes in the mucous membrane or cartilages, or in wounds of the trachea. Violent coughing or straining may set up a gaseous cyst. These cases begin either by a direct hernia of the laryngeal or tracheal mucosa, or by passage of air through a rent or ulcer in the same into the adjacent tissues. Hence, a gaseous cyst may have a distinct lining membrane, sometimes consisting of the herniated mucous membrane, or may lack any true wall, as in ordinary emphysema of connective tissue.

The circumscribed type sometimes develops suddenly, sometimes grows suddenly long after development, and in other cases increases slowly but steadily from first to last. Whenever the communication with the air passage closes early and completely, the gaseous tumor remains, as a rule, stationary. When the communication remains unobstructed, the tumor feels soft and flaccid during rest, but enlarges rapidly during expiration, coughing, or straining, diminishing on compression, deep inspiration, or forced extension of the head. The tumor is resonant on percussion, and causes modifications in the voice. The skin remains unaffected. Dr. Petit, contrary to previous writers on the subject, holds that certain forms of gaseous tumors may undergo spontaneous cure. He refers to the variety which appears suddenly at one effort, and without any chronic disease of the respiratory tract or abscess in the surrounding parts. The other varieties remain stationary or slowly increase. Dr. Petit also holds that in some cases an operation similar to the radical cure of hernia might be attempted; but compression from without would be less hazardous. In other cases, when fits of suffocation occur frequently, tracheotomy is indicated under certain precautions.—*British Med. Journal.*

WHAT DRESSING SHALL LIE NEXT THE WOUND?—The worst type of dressing is represented by vaseline or oils spread upon lint or upon any textile fabric, because the oleaginous material mingles with exuded lymph and serum and prevents organization, and because new epithelial and connective tissue cells become entangled in the fabric. This type of dressing is also bad because there is nothing in its make-up to prevent decomposition of the exudates.

There are only two types of the perfect dressing. One of these is represented by an iodoform covering for small wounds. The iodoform forms with lymph a thin form of coagulum that is not readily penetrated by micro-organisms, and even when a few are at work beneath it, the ptomaines which they produce are neutralized by the iodoform.

The best dressing is composed as follows: First a strip of sterilized Lister's protective oiled silk which is just large enough to cover the wound or the line of sutures. There is nothing that will take the place of Lister's protective. Gutta percha tissue will not answer, because it is absolutely waterproof and the skin beneath it becomes somewhat sodden. Spun glass is as objectionable as gauze or cotton or textile fabrics, because it entangles new epithelial and connective tissue cells. It is almost impossible to obtain repair by the beautiful process of clot replacement, if we cover the wound with anything but Lister's protective. And in skin grafting we can use it to such advantage that it seems as though the failures with other dressings must be more frequent than they are. Under the smooth and slightly porous Lister's protective, epithelial cells shoot along over the surface of the wound unimpeded, and granulations in open wounds carry on the process of repair without the formation of pus under permanent antiseptic dressings. Over the Lister's protective we need a thick layer of absorbent gauze or cotton to draw away serum from the wound, and to dry it so that it is not a fit food for micro-organisms.—ROBERT T. MORRIS, M.D., in *Inter. Jour. of Surgery.*

CURABILITY OF CIRRHOSIS OF THE LIVER.—According to Dr. Huchard (*Centralblatt für Therapie*), cirrhosis of the liver is especially amenable to treatment in the hypertrophic stage. The procedure which he adopted in such cases is as follows:

1. The use of iodide of potash or soda, but not in as large doses as may be ordered for syphilitic cases, from five to twenty grains daily being quite sufficient.

2. Calomel in small doses, not more than one grain daily.

3. The judicious employment of a trochar when necessary to relieve the ascites, guarding, however, against a too free removal of the fluid at one sitting, particularly when there is a marked cachexia.

4. The importance of a milk diet is paramount. The patient must take at least from two to three quarts daily, a glass every two hours, not all at one drink but by mouthfuls in order to prevent the formation of large coagula. When there is constipation rhubarb may be employed, and if diarrhœa follows, lime water should be added to the milk. Pepsin may be used to advantage if so exclusive a dietary is not well tolerated, as may also various of the aromatic waters, or wine in small quantities when the milk becomes unpalatable.—*Canadian Practioner.*

THE TREATMENT OF CERTAIN ACUTE COMPLICATIONS OF GONORRHŒA.

[*Therapeutic Gazette.*]

Gonorrhœa in the male is frequently the cause of two disorders, which always distress the patient and often annoy the surgeon by their intractability to treatment. A man who has had two or three attacks of gonorrhœa is but little troubled by a recurrence of it, but if it once be complicated with cystitis or epididymitis, he will thenceforth regard a clap with undisguised dismay; and if his medical adviser is accustomed to rely upon the commonly employed treatment of these complications, he, too, will not view the situation with equanimity, for, judging from common experience, few diseases of the male occasion more temporary dissatisfaction with treatment than these of the bladder and testicle secondary to gonorrhœa.

For these reasons the following methods of treatment proposed by Dr. C. H. H. Hall, United States Navy, seem worthy of notice (*Sei-I Kwai Medical Journal*, July, 1889). Immediately upon taking charge of a case of gonorrhœal epididymitis, Dr. Hall orders the application of a solution of 4 parts of nitrate of silver in 30 parts of sweet spirits of nitre, applied to the testicle with a soft brush.

Dr. Hall recommends sweet spirits of nitre as an application, because it dissolves the oil of the natural secretions, and therefore wets the part more effectually than water. After applying the solution once a day for two successive days, a piece of lint moistened with 30 parts of laudanum and 30 parts of solution of subacetate of lead to 440 parts of water, is laid upon the testicle and kept wet with this solution. The solution of silver nitrate so applied will result in the removal of a considerable part of the epidermis, but Dr. Hall writes that he has never observed any toxic effects from absorption of the opium or the lead. Combined with the use of the suspensory bandage, it is claimed that the effect of this treatment is prompt and complete relief, and a steadily progressive reduction of the inflammation, and return to the normal state within two weeks.

It often happens that about the time a patient is congratulating himself upon recovery from gonorrhœa, he begins to have frequent calls to pass the urine, is disturbed at night, has discomfort in the suprapubic region, and feels ill at ease after he has apparently emptied the bladder.

Ordinarily these symptoms will increase in severity until there is constant desire to pass the water, vesical tenesmus, and acute aching pain in the suprapubic region, all symptoms of more or less acute cystitis. In September, 1887, a patient in the United States Hospital, Yokohama, with an aggravated condition of this sort, had been treated in the regular service of the ward for two months with everything that promised relief, including washing out of the bladder with hot solution of boric acid; but, although the symptoms had abated, there was still suprapubic pain, vesical tenesmus, and frequent micturition four times each night and each hour or two during the day. The well-known influence of vaginal injections of hot water upon pelvic inflammation suggested the use of rectal enemata in this case. Large enemata, from one and a half to three pints were used each four hours. Relief was felt at once, and improvement manifest on the following day. At the end of a week all discomfort had disappeared, and the urine was passed but twice at night. At the expiration of the second week, patient was disturbed but once at night, and was otherwise well.

THE PROPHYLAXIS OF PHTHISIS.—At the last meeting of the Académie de Médecine M. Villemin read a report on the "Prophylaxis of Phthisis." The author said that of all the maladies, phthisis, or, more strictly speaking, tuberculosis, in all its forms made the most victims. In large towns it frequently caused a fourth of the deaths. It was, moreover, essentially infectious, and the infection was due to a microbe *sui generis*, which, independently of direct transmission, penetrated into the organism by the lungs, the digestive canal by the air and food, the skin and mucous membranes, by scratches, wounds, etc. The most frequent and most redoubtable source of contagion resides in the expectoration of phthisical patients, and then more especially when it is dry and reduced, so to speak, to powder, which change promptly takes place when, as amongst the lower class, the floor, walls, and bedclothes are covered with it. Later, when the floor is swept, this dust rises and enters the lungs, deposits itself on everything and constitutes thereby a permanent danger to those who sojourn in this tainted atmosphere. The dejections of patients contained also the contagious principle. From the foregoing it resulted that very particular precautions should be taken in the treatment of phthisical patients. Spittoons should be invariably used, the contents emptied into the fire every day, and the spittoon then rinsed with boiling water. All linen soiled should not be left to dry, but be plunged at once into boiling water. Sleeping with the patient to be strictly forbidden, and after the decease the room should be thoroughly disinfected. M. Villemin recognized that the parasite of the malady can also be introduced by the food, milk, meat, and the blood of certain animals (cows, rabbits, fowl). The milk should be the object of special care on the part of mothers and nurses (2,000 children die annually in Paris under two years from tuberculosis); it should be always boiled; the same need not be said of goats' or asses' milk, which is infinitely less dangerous. The meat should be rigorously inspected by the officers provided by the law. The habit of drinking fresh-drawn blood at the slaughterhouses (a habit much indulged in by the French for anæmia) should be strongly condemned. Discussion of this important paper was, at its conclusion, deferred till next week.—*Medical Press and Circular.*

LEMON-JUICE FOR BLEEDING OF THE NOSE.—In a case of epistaxis which had resisted various modes of treatment, including plugging of the anterior nares, Dr. Fauchon (*Rev. gén. de Clin. et de Therap.*) obtained a cure by means of the local application of lemon-juice. An injection of the juice was made by a glass syringe into the nostril from which the blood was escaping, with the result of immediately arresting the hemorrhage.—*Druggists' Circular.*

SUGAR OF MILK AS A DIURETIC.—Sugar of milk has been strongly recommended as a diuretic by M. Germain-Sée at the Paris Academy of Medicine. According to him, its action in this direction surpasses that of any other known agent. —*Druggists' Circular.*

BACTERIA AND DISEASE POISONS.

[*Med. Press and Circular.*]

As there is probably no more important subject than the one at the head of this letter, and as, if Professor Brieger, by whom the address on the subject was delivered at the third general meeting of the Versammlung deutscher Naturforscher und Ærzte, is not absolutely *facile princeps* in this department, he is certainly second to none, I shall devote the space at my disposal this week to a review of the address of this well known worker.

He pointed out at the commencement that the patient must not be considered solely as an object of treatment, but that the medical man must be overpowered with the conviction that true practical medicine should do nothing more than applied science. Only in the latter years had the undefined shadowings of disease ferments, and germs of infection obtained a palpable form. After the discoveries of Leeuwenhook, Cagmard de Latoure, Schwann, and others, Pasteur had shown that specific microbes were the cause of those fermentations that allowed higher life to flourish on the earth. The thorough methods of Robert Koch, however, were the first to permit a sharp and wide inquiry into that new world of micro-organisms that open the way to modern medicine to further knowledge. According to the present standpoint of modern medicine, which was built on the broad and firm foundation of physiology and pathological anatomy, the whole of known diseases could be grouped into four classes:

Those of traumatic origin.
Infective diseases.
Disease of tissue change.
Neuroses.

The two latter groups were constantly undergoing a narrowing process in favor of the group of infective diseases, of which it might be legitimately concluded that it embraced the overwhelming majority of all diseases. Then there arose a large series of questions. How did bacteria enter into the bodies of their hosts? How did they affect them injuriously? How did they produce the anatomical changes sometimes met with? Why did death result in one case, why recovery in another? Why were many individuals not susceptible to certain carriers, whence originated the immunity?

If we looked into the realms of nature we saw everywhere the real chemical creative power of microbes. The chemistry of the bacteria must therefore be placed in the foreground of the inquiry for the clinical comprehension of the nature of the diseases produced by their agency. Their purely mechanical disposition, mere robbing of the tissues of their oxygen and hydrogen did not suffice to explain the symptoms presented. As living things the bacteria must extract the nourishment needful for their existence from the surrounding tissues; they must then cast out the material used up as offal, which either accumulated in the neighborhood, or was thrown into the circulation. The principal part of the digestive tract was but a centre of putrefaction, in which unceasingly the same processes went on as were brought about by artificial decomposition experiments. These poisonous products of tissue change of fungi changed into innocuous compounds first, by means of sulphuric acid, as Baumann had discovered, and where this did not suffice, by means of a product of sugar circulating in the blood, glycuronic acid, as was demonstrated by Schmideberg. If, however, the vital powers were reduced, these protective regulations would fail, and we found in intestinal diseases, in diseases accompanied by sloughing of tissue, and also in infectious diseases, such as diphtheria, facial erysipelas, many cases of pyæmia, and partially in scarlet fever, that the excretion of aromatic substances, carbolic acid in particular, was increased. The basic products of tissue change produced by bacteria were, however, of far higher importance than the aromatic substances, as they not only influenced the vital functions injuriously, but they were capable of directly destroying them. He named the powerful poisonous bases "toxines," the non-poisonous as "ptomaines," the latter in memory of Selmi, who first directed attention to the presence of alkaloid substances in bodies, but who never had a substance in a pure state under his hands. The main thing, however, was to procure them in a pure state, to determine their constitution in order to determine the part they played in the individual affected, and thereby the causes of the disease symptoms.

According to the ruling view it was the ferments, the presence of which was assumed principally from physiological processes, that brought about the rational "unbuilding" of the nutriment in the digestive tract. Even in the first part of the digestion act, where the albuminous bodies were changed into their soluble modifications, the peptones we met with were toxines. Indeed, a poison, peptotoxine, could be extracted from fibrine digested with pepsine, that quickly killed lower animals with paralysis of the posterior extremities and stupor.

Ptomaines and toxines met us in great numbers so soon as bacteria took part in the further decomposition of albuminous bodies. Neuridine, cadaverine, putrescine, were known, as also mydatoxine, and there was further an isomer of typhotoxine, as well as neurine and methylguanidine. The two latter toxines, which had powerful poisonous action, as well as the two first, explained the way of the bacterial property of converting the normal constituents of the body into powerful poisons. Neurine could only spring from choline, the bacteria abstracting a molecule of water. This simple manipulation replaced choline by a powerful poison, neurine, which occasioned total paralysis and stoppage of the heart in diastole. Besides these symptoms, there were those of the muscarin group. Methyl guanidine, on the other hand, originated in the oxydating power of the bacteria upon creatine. Numerous toxines occured in decaying fish, among them one allied to the fearful poison of the fly fungus. The ptomaines and toxines here sketched participate in those gastric troubles and nervous symptoms that break out in consequence of disturbances of digestion, and especially after eating decayed food, and then in the form of an outbreak of poisoning, carrying off quite a number of people. Both neurine and neuridine had been recognized in cases of poisoning, the latter in sausage poisoning. He then referred to the Wilhelmshafen mussel-poisoning case, in which the toxine named by him mytilotoxine caused the death of so many individuals. This toxine formed a splendid crystalline combination with gold chloride. Toxines appeared in the human body on the seventh day of decay; amongst these hydaleine was worthy of note, which even in small doses caused profuse diarrhœa, vomiting, and inflammation of the bowels.

The highest clinical interest was, however, attached to those ptomaines and toxines which sprang from the pathological bacteria themselves. The staphylococci and streptococci, the original cause of so-called blood-poisoning, pyæmia and sepsis, presented certain differences in regard to their virulence, which could be explained by their chemical characteristics. The staphylococcus pyogenes aureus (Rosenbach) produced on vegetable broth along with a ptomaine, not further studied, a large quantity of ammonia; the streptococcus pyogenes (Rosenbach), on the other hand, on the same nutrient material, produced large quantities of trymethylamine. Leber, from cultures of the staphylococcus aureus, had sometimes seen a non-nitrogenous base originate, called phlogosine, which produced violent inflammation.

OINTMENTS IN COLLAPSIBLE TUBES.—Arning, at a meeting of the German Dermatological Society, strongly recommended the putting up of ointments in tubes, on the ground that, being thus kept air-tight, they would be better protected from dust, etc., and could be carried about without danger of soiling the pockets or other receptacles. Another advantage of this mode of packing is found in the fact that it would do away with the annoyance of having the old gallipots returned, since the tubes could not be used a second time.

URAL, A NEW HYPNOTIC.—This body, obtained by dissolving urethane in chloral, presents itself in the form of crystals soluble in alcohol, little soluble in water, which violatilizes without decomposing, and is fusible at 106°. It imparts a bitter taste.

Toppi, who has experimented with the hypnotic, claims that it is the most rapid and trustworthy of all that we know. It does not modify the blood pressure, and its administration is never followed by accidents. It is prescribed with success in cardiac affections, mental maladies, hysteria, etc.—*La France Medicale.*

AMMONIA IN THE BATH.—Nothing so quickly restores tone to exhausted nerves and strength to a weary body as a bath containing an ounce of aqua ammonia to each pail of water. It makes the flesh firm and smooth as marble, and renders the body pure and free from odor.—*Annals of Hygiene.*

Bibliography.

DIABETES: ITS COURSE AND PERMANENT CURE FROM THE STANDPOINT OF EXPERIENCE AND SCIENTIFIC INVESTIGATION.

By EMIL SCHNEE, M.D., Consulting Physician at Carlsbad and Physician of the Imperial and Royal Consulate of Austria and Hungary for the Riviera, at Monaco. Translated from the German by R. L. TAFEL, A.M., Ph.D. English edition revised and enlarged by the author. Philadelphia: P. Blakiston, Son & Co., 1889.

The author of this monograph was a pupil of Frerichs, and from him, claims to have received his impetus in the study of diabetes, and he did not cease to study it until he discovered, to his own satisfaction at least, its cause and its cure. Schnée's theory of the cause of diabetes, tracing all cases to inherited syphilis, has become well known through the journals. Syphilis the cause, its treatment is fixed and the cure positive. Whether we accept or reject this theory, the book is well worth perusal.

J. M. F.

ESSENTIALS OF PATHOLOGY AND MORBID ANATOMY.

By C. E. ARMAND SEMPLE, B.A., M.B., Cantab.; L.S.A., M.R.C.P.Lond.; Physician to the Bloomsbury Dispensary, etc.; Professor of Vocal and Aural Physiology and Examiner in Acoustics at Trinity College, London, etc., etc., etc. With forty-six illustrations. Philadelphia: W. B. Saunders, 1890.

This little book is designated as No. g of Saunders' Question-Compends. We are informed by a conspicuous notice that these manuals are not intended to supplant any of the text-books, but to contain the essence of those facts with which the student must be familiar. In this respect the present work is commendable if we for the present, although with reluctance, admit that any part of the science of pathology is not essential. One feature of the work is, however, not to be commended. Of the forty-six illustrations, about forty are copied, with varying amount of skill, from well-known works, but no credit is given. The few remaining figures for which any claim of originality would be made are so poor as to be scarcely recognizable as copies, if such they be. The author informs us in the preface, however, that the "numerous and excellent blocks with which the book is illustrated" were placed at his disposal by the publisher. The greater part of the work has the appearance of having been printed from well-worn types, but it is everywhere legible. J.M.F.

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THE TREATMENT OF CROUPOUS PNEUMONIA WITH CALOMEL is highly spoken of by an Italian physician in a recent number of *Lo Spermentale.* He uses it in combination with opium and regards the diarrhœa thus induced as exercising a favorable influence upon the course of the disease.—*Canadian Practioner.*

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NEW SERIES VOL. XXIII. Cincinnati, December 7, 1889. *WHOLE VOLUME LXII.*

Original Articles.

VAGINAL HYSTERECTOMY FOR CANCER.

WITH REPORT OF A CASE—RECOVERY.

A Paper read before the Academy of Medicine, October 14, 1889,

By CHAS. A. L. REED, M.D.,
Cincinnati.

The concensus of advanced professional opinion to-day is in favor of total extirpation of the uterus for cancer. This opinion has had recent justification in the statistics of Dr. Munchmeyer, of Dresden, at the Obstetrical Clinic of which city, from 1883 to 1889, hysterectomy was done 110 times; eighty of which were for carcinoma, and thirty for other diseases. Of the 110 cases but six died, making the primary mortality but 4.5 per cent.; of the eighty cases of carcinoma, four died from the effects of the operation, making the primary mortality in cases of extirpation for cancer but 5 per cent. Concerning the ultimate results, the figures are equally satisfactory. Of the eighty cancer cases ten had recurrence of the disease. In a series of seventeen cases operated upon two years ago not one has had recurrence.

Of the various methods devised for the removal of the cancerous uterus, that which may with propriety be called the "American Method" is by far the most preferable.

Of the other methods, all of them German in origin, but little need be said. Czerny's method implied dissection of the uterus from its anterior peritoneal covering before extirpation—a needless procedure, as extirpation is not in the least facilitated by the manœuvre, and valuable time is lost in a worthless procedure. Peter Müller devised a technique, the leading feature of which was division of the uterus longitudinally in halves before extirpation. The object of this procedure was to facilitate ligation of the uterine ligaments. Fritsch begins by operating upon the broad ligaments, controlling hemorrhage from them by sutures. He then put an elastic ligature around the uterus and drew it down as he completed the dissection, which was done by means of a blunt instrument. The broad ligaments were then again ligated in segments from above downwards. Winckel's technique consists in effecting the enucleation by means of a spiral incision around the uterus, which he drags down by firm traction. The utero-vesical and utero-rectal spaces are thus entered before the broad ligaments are divided. These latter, Winckel states, can be readily seen and ligated when the operation is done according to his plan.

The five methods mentioned are all defective in that they comprehend useless procedures; and further, in that they all rely upon the ligature as the only hæmostatic expedient. It is true that Schroeder resorted to the clamps, but according to Winckel he only used them to compress the tissues into fissures, into which ligatures were applied by means of a snare. The time consumed by these various unnecessary details could not but aggravate the primary mortality from the operation.

I have done this operation six times with only one death. In that case operation had been deferred until the woman was practically exsanguinated. It is but fair to myself and to Dr. Johnston, who brought the case to me, to state that he had her under observation but a week prior to the operation. She died from shock within three hours after extirpation. My other five cases all made good primary recoveries. One of them, operated upon about twenty months ago, is the only one in which recurrence has taken place. In that case the disease was confined to the endometrium. As usual I curretted the cavity before operating. The result was that when I exhibited the specimen to the Cincinnati Obstetrical Society a distinguished gentleman, himself an operator, stated that he fancied this was "a case in which recurrence would not take place for the reason that there was no evidence of disease in the specimen exhibited." Another gentleman went so far as to insinuate against the advisability or justifiability of the operation, because of the evident absence of disease from the uterus. These criticisms only show how mistaken one may be, for this is the only case in my whole list in which recurrence has taken place.

The last case, the specimen of which is herewith presented, was that of Mrs. G., æt. 34, of Jamestown, N. Y. She was the mother of one child, six years of age. Her health had always been good up to early in 1888, since which time she had had more or less of "female weakness." A leucorrhœa, that at first afflicted her, soon took on a purulent character, and a little later a sanguino-purulent character. She had menorrhogia, which soon became a metrorrhagia. This state of affairs continued until June last, when her attending physician, Dr. Hall, made out a diagnosis of carcinoma of the uterus.

I saw her September 28, and found her very anæmic. The disease evidently extended well up to the body of the uterus, which, however, retained its mobility. I advised absolute rest, vaginal irrigation of dilute acetic acid (vinegar), and forced diet. I next saw her a week later. Her condition was materially improved, so far as the state of her circulation and general health was concerned.

October 6, with the assistance of Drs. Hall, Peterson, and W. M. Bemus, I did hysterectomy at the patient's home in Jamestown, N. Y. Extirpation was rendered difficult chiefly by the enlargement of the uterus. The usual dissections through the anterior and posterior septums were not difficult. The lateral dissections, however, were difficult, because of the inability to make satisfactory downward traction on the uterus, this inability arising from the friability of the organ. This latter complication made it advisable to do the Schroeder retroversion act. From this time on the successive steps of the operator were readily accomplished. Clamps were applied and removed on the fourth day. There was scarcely any blood lost, as the operation was done under vinegar irrigation. This patient was dismissed by Dr. Hall in two weeks.

The case is illustrative of what can be done for many cases that are really far advanced, but in which the disease is yet restricted to the uterus. The present prospects for this patient are for complete restoration to health.

311 Elm Street.

[For discussion see page 624.]

POISONING BY ILLUMINATING GAS.

REPORT OF A CASE — SLOW RECOVERY — SOME NEW TREATMENT.

By J. C. Crossland, A.M., M.D.,
Zanesville, O.

It is the consensus of opinion among chemists and experimenters that carbon monoxide and the hydrocarbons are the poisonous constituents in illuminating gas. Analyses show that water gas contains from three to four times more of these factors than coal gas, and is therefore more dangerous. Our knowledge of the action of these poisons on the economy is incomplete. We know that carbon monoxide breaks up the oxyhæmoglobin of the blood, forming with the hæmoglobin a stable union, thereby deoxidizing the blood. Some authorities claim that the effects of illuminating gas on the system are not due alone to the deoxidation of the blood, but that it has a narcotic action on the central nervous system. With these introductory remarks on the nature and action of illuminating gas, the history of the following case is introduced:

On November 20, 1888, Mary S., a strong young woman, applied at the Kirk House at 10 p.m. for lodging. It was subsequently learned that she had been employed as a domestic in the western part of the State and was on her way home, having stopped off here for the night and intending to take the morning train for her home in an adjoining county. She was unable to write and the clerk placed her name on the register, with a call for 5 a.m. She was assigned a room and immediately retired. At 5 a.m., the clerk went to her room to call her. On approaching her room he found the hall flagrant with the odor of gas. Recalling the illiteracy of this guest, he suspected she had blown out the gas. He made violent raps on the door, and, receiving no response, broke it open. There lay in her bed the young woman, apparently hopelessly poisoned by the gas. The stop-cock was examined and found to be turned on full. The gas was shut off, the door widely opened, and the window raised. The room was a small one, not exceeding 10x10 feet.

Dr. C. Draper was summoned, and when he arrived found the patient in the following condition: Respiration was stertorous, shallow and abounding in mucus rales. Patient frothing at the mouth. The pulse was merely perceptible. The eyes were partly open, fixed, staring and insensible to touch; pupils moderately dilated and not reacting to light; the conjunctivæ were congested. The face was purple and the limbs cold. Patient moribund. Seeing that a pure atmosphere had had no effect in restoring the girl, Dr. Draper administered stimulants hypodermically and called Dr. E. H. Brush in consultation.

After the arrival of Dr. Brush treatment by stimulants hypodermically administered was continued, and a small battery put in use. This treatment was continued till 9 a.m., without the slightest improvement in the condition of the patient.

At this time the writer was asked to meet Drs. Draper and Brush, and at the same time was informed of the nature of case. He promptly joined them, taking with him a galvano-faradic battery and a drach vial of a ten per cent. solution of nitroglycerine prepared by Parke, Davis & Co. Fifteen minims of the nitroglycerine solution were injected into the epigastrium. The good effects of this on the heart action was perceived in about five minutes, but it soon became evident to us that several hours would elapse before the system could throw off the poison sufficiently for the patient to regain consciousness. We soon learned that nitroglycerine was the stimulant *par excellence*, and we made it our anchor remedy throughout the treatment.

No exact record of the case having been kept, we will have to generalize somewhat. The treatment by hypodermic injections, chiefly of nitroglycerine, was continued at intervals varying from thirty minutes to two hours, according to the indications. At 3 p.m. the vital powers were almost collapsed, and death seemed imminent. Twenty minims of the nitroglycerine solution were injected over the epigastrium, and the poles of the battery applied to the regions along the track of the pneumogastric nerve. In one hour the condition of the patient was as good as it had been at any time since 9 a.m. This line of treatment was kept till 12 o'clock at night, when, by the use of a strong current from the battery and slapping the face with a wet towel, the patient seemed to notice those in the room. At 3 p.m. she had so far recovered as to be able to mutter "don't" in protest to the use of the battery. At 4 a.m. the patient could answer questions, and expressed a desire to defecate. Apprehending evil effects from allowing her to remain up long enough to defecate, we furnished her with a bed-pan, which she claimed she could not use and insisted on getting up. We allowed her to get up, but she could not have a stool. She was no sooner in bed than she desired to get up again, and several times she was placed on the chair without an action of the bowels. Thinking this desire to defecate only rectal tenesmus, a hypodermic injection of morphia was administered into the perineum and the desire to defecate ceased. From this time the patient went on to complete recovery. Headache, nausea and muscular weakness were symptoms which lasted a day or two, but the patient left the hotel on the third day, feeling quite well.

There is no known antidote to the poison of illuminating gas. We attribute the value of nitroglycerine in the above case to its stimulant properties.

VOMITING IN PREGNANCY.—A writer in the *Lancet* says: "I have not failed once for twenty years, by a single vesication over the fourth and fifth dorsal vertebræ, to put an end at once to the sickness of pregnancy for the whole remaining period of gestation, no matter at what stage I was consulted. The neuralgic toothache and pruritus pudendi of the puerperal condition yielded as readily and to one application."

CREOLIN is being used to the exclusion of other antiseptics in the Obstetric Department of the Frauen Klinik under the care of Professor Winkel, of Munich.

NITROUS ETHER FOR THE CURE OF ECZEMA INPETIGINODES.

By W. H. Sullivan, M.D.,
Rising Sun, Ind.

This is a case of more than ordinary interest to the writer, the patient being a man of fine physique, sound health, and addicted to no bad habits; æt. 67; weighs about 220 pounds; florid complexion; bilious and nervous temperaments predominating. He was attacked with the above disease about ten months ago, and treated by the most approved methods, without signal success, both internally and externally.

When about despairing of any good results the patient was handling some nitrous ether, which was spilled, or rather, accidentally poured on the affected parts. It produced immediate comfort, relieving the itching and gradually the discharge from the skin. The parts affected were the face and hands. When itching or burning again occurred a thorough application was made of the nitrous ether, and to-day the result is simply marvelous (three weeks since this treatment was instituted).

The writer of this article is the patient, a physician of forty-one years' standing, a graduate of Transylvania University, who has done nothing else during all these years but follow his profession that he loves so much. He believes the above treatment is the best ever instituted locally for this disease, and promises the best results. It is a new use of an old remedy, unnoticed by any dermatologist or author so far as his knowledge goes.

November 1, 1889.

A Cure for Dandruff.—Dr. A. J. Harrison of Bristol, (*Le Progrès Med.*) recommends the following salve for dandruff:

Caustic potash,	8 grains.
Phenic acid,	24 grains.
Lanolin,	
Cocoanut oil,	aa ℥ jv.—M.

This preparation should be rubbed into the scalp morning and evening. Complete cure is usually effected in one to three months.—*Med. Times and Register.*

The best lotion for recent injuries, says Billroth, is the ordinary lead lotion.

Society Reports.

ACADEMY OF MEDICINE.

Meeting of October 28, 1889.

The President, Wm. Judkins, M.D.,
in the Chair.

G. A. Fackler, M.D., Secretary.

Dr. Reed reported a case of

Removal of Uterus for Carcinoma.

[For paper see page 621.]

DISCUSSION.

Dr. Wenning remarked that the appearance of the specimen and the clear history of the case given by Dr. Reed ought to be a sufficient answer to the question of propriety of the operation. The gentleman has so far been very fortunate in his cases—five primary recoveries out of six cases thus operated upon is certainly a good result. With all this, however, it is still a mooted question whether kolpo-hysterectomy is really a justifiable operation. Two reasons are given against it: (1) that it is attended with too great a mortality, and (2) that it does not insure against recurrence. In answer to the first question, it may be stated that the mortality will depend upon the nature of the case and the skill of the operator. A proper distinction must be made between cases suitable and unsuitable for the operation. If the disease does not involve the tissues laterally, the broad ligaments and subjacent connective tissue, but is confined to the cervix, a simple amputation of the cervix might be all-sufficient in removing the diseased structure, provided we had the assurance that the upper portion of the uterus is not also invaded. These are the cases most favorable for either operation; the mortality from hysterectomy, if skilfully performed, will be no greater than that of cervical amputation. If the certainty of leaving a healthy stump were assured, cervical amputation would be alone justified; if, however, there is suspicion of the infiltration extending upwards, hysterectomy could be the only justifiable operation. In those rare cases of cancer of the body of the uterus, with apparent non-implication of the neck, hysterectomy was not only justifiable but imperative. Unfortunately, however, in the majority of instances the disease begins in the cervix and has invaded the contiguous structures in all directions, laterally as well as upwards, before the cases are brought to our notice for operative treatment. In these cases hysterectomy could promise no good result, because by its means not all of the diseased portion was removed. In fact, it was more than probable that a greater amount of the cancerous infiltration could be removed by an extensive high amputation of the cervix than a simple hysterectomy.

The mortality in competent hands has been greatly reduced by the simplification of the technique of the operation. One great element is the much shorter time required by the present method of arresting the hemorrhage by clamps and leaving the wound open for drainage, than the old method of securing each bleeding vessel by means of ligatures and stitching the torn edges of the peritoneum together. It has therefore become the property of operators not so perfectly skilled as the favored few who could boast of extraordinary and superior skill. The greatest element of safety to the patient is the lessened liability to shock and hemorrhage by the shorter duration of the operation. It is really surprising to note the small amount of hemorrhage accompanying the operation.

But even if we could not promise a radical cure in every case, this was no argument against the operation, if it prolonged life and relieved pain. Our first attempt should always be, of course, to effect a cure, if possible; if this be impossible, our next duty is to endeavor to relieve pain and prolong life. If hysterectomy will not insure the former but will effect the latter, it will still be a justifiable operation, if the same end cannot be attained by other less radical means in desperate cases.

The greatest difficulty, however, lies in determining beforehand which are and which are not suitable cases for the operation. Marked cachexia contra-indicates it; also extensive infiltration of the neighboring structures contra-indicates it. Sometimes, however, the latter is only discernible after the operation has been far under way or entirely finished. Before operating we should be sure that the uterus is not entirely fixed, although it must be borne in mind that a moderate amount of fixation will accompany almost every case of malignant disease of the uterus. This organ should be at least somewhat movable. Firm fixation positively contra-indicates the operation of total extirpation. Cervical amputation may here take its place. Sometimes, however, appearances are deceptive. The speaker saw a case some time ago where a young woman, of good physique and otherwise apparently in good health, had extensive disease of the cervix for which curetting and cauterizing had been done previously by another physician. The womb was movable and the disease apparently not involving the adjacent tissues, although it extended far upward into the uterus. The womb was extirpated with considerable difficulty, and post-mortem it was found that the bladder and rectum were considerably infiltrated with the carcinomatous disease.

The operation itself is not always so easy as it might appear. Among the many different skilled operators it has taken a long time to find out which is the simplest and most rapid method. Individual skill amounts to everything, and each operator must learn for himself. The greatest danger lies in injuring the bladder, which lies so closely on the anterior surface of the uterus. This accident has occurred a large number of times. It occurred to the speaker in the only operation he performed, but the post-mortem examination showed that the bladder had also undergone cancerous degeneration. The same accident happened to another operator recently, although the patient was otherwise doing well.

Dr. Withrow desired to speak of a number of cases he had seen and their results. He had seen the operation performed upon six patients. The first was less than three years ago, and the patients are all dead. Primary success was obtained in all but one, in which the operation lasted five hours and death ensued in forty-eight hours. These operations were performed before the use of the clamp was advocated and before there was general familiarity with the results obtained by the investigations of Ruge and Veit, and Jno. Williams, and so well epitomized by Dr. Lusk. The investigations show pretty clearly the direction of spreading from the various points of origin of uterine cancer.

The cases mentioned by the speaker were all cancer of the cervix except one. This was that rare form of villous cancer of the endometrium, but four others of such nature having been reported, one by Dr. McCallum, one by Dr. Goodell, and two by Dr. Lusk. The examination in the case reported was made from curettings by Dr. French.

This cancer is peculiar because it is confined absolutely to the endometrium. Uterine hemorrhage had been an obstinate symptom, several curettings having been insufficient to prevent the return of the hemorrhage. Marked cachexia existed, and the diagnosis was finally based upon the pathological examination, though the cervix was apparently in perfect health. This case made the best recovery of the series, but finally died at the hospital of cancer of the peritoneum and the broad ligaments. It was also peculiar that the disease should spread in this direction, since the peritoneal surface and the deeper muscular structures of the uterus showed no sign of disease. Notwithstanding that this was a case which, *par excellence*, seemed adapted to this operation, death resulted quickly due to infiltration of the peritoneal covering of the broad ligaments, or cancer of other organs.

The patients were all elderly women except a case of cauliflower epithelioma of the cervix in a woman of twenty-three. The speaker concluded therefore from his observations and reading that hysterectomy for cancer is not justifiable, except in such cases as the first spoken of, in which the disease is confined to the interior of the uterus. In the others he thought the operation would be decided upon as inapplicable.

If the disease begins in the vaginal cervix, it usually invades the walls of the vagina before attention is directed to its existence, so that no better chance is offered by total extirpation than by the Baker Brown high operation. If it begins in the mucous membrane and within the line of transitional epithelium, the glandular substance will soon become invaded, and the internal os in these cases usually seems the anatomical limit of the disease until such time as it has so extended laterally to the vaginal junction of the cervix, as to render its removal impossible by hysterectomy. Indeed, high amputation permits more extensive removal of the disease of the vaginal attachments of the uterus than total extirpation, and since there is usually no disease above the os internum there is no advantage in removing the entire organ, which so greatly increases the danger of the operation.

Dr. Reed stated that in his second case operated upon twenty months ago, the disease was so nearly limited to the endometrium that after preliminary curetting the organ appeared almost without disease. Yet this was the only one of five that had a recurrence, the first of the operations having been performed two years ago.

He was surprised that of six patients operated upon in the last three years, and alluded to by Dr. Withrow, all ended fatally. In the light of the experience of others this is simply astonishing and exceptional. There is a certain suggestiveness between these two cases, one cited by Dr. W., the other in the speaker's list, in which the disease was so nearly limited to the endometrium, both having recurrence after extirpation. The speaker's patient is unconscious of this fact, and her general condition is excellent. He must say that the conservative operations are unsurgical, because at no time have we a reasonable guarantee that the exsection has been extended beyond the field of infection, which we do have after a hysterectomy, because the process, if it begins in the cervix, does not extend through the lymph channels and vessels, but by a progressive invasion of tissues.

Amputation is uncertain in the light of consequences. Goodell performed a Cæsarian section upon a woman, impregnation occurred, and delivery proved impossible, on account of cicatricial stenosis. One woman died in Rushville from the same cause.

Stenosis of the cervix, that is brought about by cicatricial bands, is a serious state, and operators have alluded to it with pronounced emphasis. The fact that hysterectomy had prior to three years ago yielded a mortality of 18 to 20 per cent. is certainly meriting generous consideration. The statistics upon which Winckel ventures to express a favorable opinion yield a mortality of 27 per cent. Munchmeyer's statistics already alluded to and Montgomery's estimate, places the present primary mortality at 5 per cent.

Yet ovariotomy is considered a justifiable operation, although Spencer Wells, in 1,000 cases, had 20 per cent. fatal terminations, while here we have an operation almost in its youth giving us no worse results than ovariotomy.

Dr. Ransohoff thought that an operation, in which 25 to 30 per cent. of patients die in consequence of the operation, and very few live three years thereafter, cannot be looked upon as justifiable. Statistics in malignant disease of the heart tell us that only 9 per cent. ultimately recover, but only 2 to 3 per cent. end fatally, in consequence of the operative interference. A mortality of 30 per cent. excludes an operation from the justifiable class, unless its immediate successful issue means also positively an ultimate recovery.

Dr. Reed inquired whether a patient was not doomed with cancer of any other organ? Earlier operators did not furnish statistics of results of hysterectomy. Others have been such recent operations that no positive data as to ultimate recovery can be given. Dr. Montgomery has stated that the primary loss is less than from ovariotomy, and subsequent results justify the method. The speaker conceded that much depends upon the revelation of statistics, and these will tell largely as to the adoption of hysterectomy.

Dr. Wenning thought there could be no question as to the reduction of the mortality every year. This is true, since at present the profession has awakened to the necessity of early recognition of cases of cancer of the uterus, and, drawing a more favorable comparison between this and cancer of the breast, attention is naturally directed much sooner to disease of the breast than of the uterus. In the latter we may at first simply have a leucorrhœa, followed by hemorrhage and some erosion of the cervix, which is frequently treated with caustics, curetting, etc., and only after infiltration has extended too far, and the case is beyond hope is its true nature recognized. Every thing depends on the earlier recognition of the disease. Hence the operation is in its infancy, because in many cases in which an operation was performed, it was not early enough, and only lately have operators attained the skill requisite for its performance.

Dr. Ed. Ricketts stated that in cancer of the breast the percentage of recoveries beyond three years after removal is very small, and still it is considered a justifiable operation. The operation of total hysterectomy is on trial. It is but a few years since it has been properly resorted to, and we cannot in justice call for statistics. Total extirpation is not so fashionable in other countries as it is in America, and a number of gynecologists in England resort to the thermo-cautero in preference to high amputation.

Dr. White agreed with Dr. Wenning as to the selection of the two operations. In order, however, to arrive at a conclusion it might be well to examine more closely into the manner of extension of cancer. It has already been stated by one of the speakers that the process was by simple invasion of tissue, and not through the lymphatic system. This is true so long as the growth is confined to the so-called glandular tissue, that is, cervix proper. The extension is upward till it comes in contact with the body of the uterus, and here at least for a time is the upward invasion stopped, but continues laterally into the vaginal septum. The speaker believes when this is the case the high amputation is more effective, as it includes generally more of the tissue around the cervix. If, however, the invasion of tissue has gone beyond the internal os, he can hardly understand that an organ so well supplied with lymphatic vessels should be invaded simply by gradual extension of the tumor, and is of the opinion that only a few days would elapse after the growth has entered the uterine tissue before the cancerous deposits would be conveyed through the lymphatics into the adjacent tissues. In this way can be accounted for the return in the stump when the operator has eliminated all signs of the disease, and likewise the return of cancer which seems to be wholly confined to the endometrium. Our success certainly depends on the early recognition of the disease, and when confined to the cervix, extirpation will give satisfactory results.

Dr. Reed, in conclusion, stated that he was not finally committed to the operation. But he wished to be definitely understood on one point. A gentleman had described a case in which the disease travelled towards the vagina and then along a route by which it invaded the submucous tissues about the uterus and fornices. This is a case of infection beyond the uterus, and is not a case for hysterectomy. Others have alluded to cases in which the disease has invaded the intracervical tissue, compromising the parenchyma of the cervix, infecting the broad ligaments, etc. No one would undertake to extirpate the uterus if such a condition can be previously ascertained.

HARVEIAN SOCIETY OF LONDON.

Meeting of November 7, 1889.

The President, THOMAS BUZZARD, M.D., F.R.C.P., in the Chair.

The Administration of Certain Drugs by Electricity.

DR. CAGNEY said that experiments by Eulenburg, von Bruns, and Hermann Munk had shown that certain drugs could be made to pass through animal tissues between the poles of a galvanic current. He had used iodide of potassium in this way for the cure of labyrinthine deafness and in lead palsy. Only very small doses, however, could be administered through the skin. The method was best adapted for the treatment of diseases of the skin and mucous membranes, or of small tumors immediately beneath them. The indications for the method were those for the local use of iodine and iodide of potassium. In syphilitic and other affections of of the throat, and especially in chronic pharyngitis, it was very useful. Nodes and gummata in accessible situations seemed to yield readily to it, and this was equally true of tubercular ulcers, in the later stages of syphilis, mucous patches, and papular syphilides. Amongst non-specific affections it served well in the treatment of indolent ulcer, lupus, and acne, and to promote absorption in enlarged strumous glands. Benefit might be expected also in bronchocele and exophthalmic goitre. The method seemed to possess certain advantages. By its use it was possible to administer in perceptible doses a drug which was among the most useful of those available—a drug, moreover, which was not easily tolerated by every constitution, and in a manner which was least likely to disturb the system. It was conveyed directly to the part where its action was needed, and presumably in a condition of maximum activity. Finally, the lesion, if it were due to errors of nutrition, or if, as in metallic poisoning, it were attended with paralysis, was at the same time benefited by the stimulating action of the galvanic current. In the application of the method a very strong current was not needed, but a sufficient current density was required, and the tissues under treatment must be brought directly in the path of the current. The electrodes might be either sponges holding solution of iodide of potassium or a modification of Dubois' conducting tubes filled with the fluid. The latter gave the best results in Munk's physiological researches, and doubtless they were to be preferred where the skin had to be penetrated. They should then be of large size. For the treatment of mucous surfaces an electrode might be made of a glass tube, which could be filled with fluid, having a zinc wire introduced through the bottom, and the mouth (which might be cut to any desired curve) blocked with a fine sponge. This was connected by means of the zinc wire with one pole of a galvanic battery. The electrodes should be of large surface area. The fluid should be a saturated solution of iodide of potassium, and it ought to be supplied, where possible, at both poles. Where this was not possible the solution should be at the negative pole. The current should be passed for ten to fifteen minutes, and its strength would be determined by circumstances. Its direction should be reversed every minute. It was for this reason that both poles might be charged with advantage. Under suitable conditions the positive pole might be carried by a gold needle, which was plunged in a convenient situation beneath the skin. This expedient served especially in the treatment of strumous glands, and perhaps of bronchocele. By its means the obstacle arising from the depth or inaccessibility of the part under treatment might sometimes be overcome.

DISCUSSION.

MR. JULER remarked that the method employed was one of great practical possibilities. He asked if one pole could be placed under the skin without great pain. He also inquired what was Dr. Cagney's experience in the use of electricity in tobacco amblyopia. He himself had found it of great service, and was prepared to expect even better results, both in the form of amblyopia and in that due to lead poisoning, from the combination of electricity with the local action of drugs.

DR. SPICER asked if Dr. Cagney had used this method in the treatment of atrophic rhinitis, where other remedies usually failed to effect a cure.

DR. FRANKISH pointed out that the

drug used was employed only locally and in small quantities, and he believed that it was therefore little likely to be of use in syphilis. In syphilitic deafness especially large doses of the iodide were required to produce permanent effects.

Mr. Hill showed that it was certainly of use to influence the local lesion, even if the constitutional disease had to be treated separately.

The President would take an early opportunity of testing this new method. It was evident, he thought, that a very strong current must be used to cause the drug to pass through the tissues to any considerable depth. In the case of abdominal tumors, great strength of current had been used, but only with non-polarizable electrodes, and it seemed essential to this new process that polarization should take place.

Mr. Jessett spoke of experiments at the Cancer Hospital upon the electrolysis of malignant tumors. Extraordinarily high strength of battery had been used, but it had been found very difficult to pass more than five or six milliampères through a tumor. He doubted if such great currents really reached the tissues. The skin must be pierced, and this, when done by electrodes, was very painful. In his experience, electrolysis had no effect on cancerous tumors.

Dr. Cagney, in reply, said that the pain caused by passing electrical currents beneath the skin through needles was not unbearable. In all the cases which he had treated he had not used excessively strong currents, nor did he think them advisable, but he employed saturated solutions of iodide of potassium. Only slight results could be expected when the current had to pass through the cuticle, and especially when two layers of cuticle were to be traversed.

Anti-Fermentative Treatment of Infantile Diarrhœa.

Dr. Luff read a paper on the causation and treatment of that variety of acute infantile diarrhœa produced by irritative products, resulting from fermentations set up in milk either previous to or after ingestion. While admitting that though probably several irritating substances resulting from the fermentation of milk were factors in the production of the form of acute infantile diarrhœa under consideration, he contended that the principal share of the blame rested with the milk or cheese ptomaine, tyrotoxicon, produced during the fermentation of milk under certain conditions. The treatment of acute infantile diarrhœa with the view of arresting the abnormal intestinal fermentation was then considered. Carbolic acid, creosote, resorcin, salicylic acid, salicylate of soda, naphthol, and salol had been given in the hope of checking the putrefactive changes in the bowels. Ringer had recommended the administration of a weak solution of bichloride of mercury in infantile diarrhœa attended with very slimy stools. Dr. Luff then referred to Dr. Illingworth's antiseptic treatment of infantile diarrhœa, which he had himself found most useful, and the employment of which had first directed his attention to the treatment he had used. This consisted in drug treatment and diet treatment combined. The drug treatment consisted in the administration of 1-50th of a grain doses of the biniodide of mercury dissolved in iodide of potassium, combined with one-grain doses of chloral hydrate. It was shown experimentally that the soluble biniodide of mercury was an extremely soluble and diffusible salt, and that it possessed the property of combining with and rendering insoluble the milk ptomaine tyrotoxicon. As regards the diffusibility of the biniodide of mercury, Dr. Luff had detected it in the urine within two hours of its administration. Dr. Luff had never found that the soluble biniodide of mercury itself acted as an intestinal irritant. Of eighty cases of acute infantile diarrhœa treated by this method, the diarrhœa ceased within two days in seventy-two of the cases; in five out of the remaining eight cases it ceased within four days, and in no case did it last over seven days.—*British Med. Journal.*

SOCIETY NOTICES.

Academy of Medicine.—

Monday, December 9, Dr. Schoolfield will report a case of "Suppurative Hepatitis," and Dr. Jos. Boylan a case of "Intubation."

The Metaphysical College of Massachusetts, an institution for teaching Christian Science, has dissolved.

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

TERMS, $3.50 PER ANNUM IN ADVANCE.

☞All letters and communications should be addressed to, and all checks, drafts and money orders made payable to
DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, December 7, 1889.

The Week.

CO-OPERATIVE CHARITIES, *ET AL.*

Some years ago an effort was made in this city to effect an organization of a host of small charities that were constantly duplicating each other's work and with a needless waste of means. The consolidation and uniting of these societies has been the means of accomplishing a much greater amount of good to the poor, while its more systematic work prevents a vast amount of imposition that took place under the old order of things.

This co-operation of the charitable people should be encouraged. So far as it is possible the various churches should care and provide for their own indigent members and families, and where the church organization is weak its officers should appeal to a wealthier church with a statement of the necessities of the case. This will never fail to bring a response.

There are very many independent benevolent organizations that make it a special object of their existence to care for their sick poor. In our last two issues we narrated a brief account of the charity hospitals of the city and the extent of their accommodations. The great probability is that there is very little duplication of their work, but we can conceive that it may be made much more effective by the effecting of an organization of their heads or managers. Each would learn something from the others that would be of economic and practical use. They would learn how to supplement each other's special work, so that greater and more extended good would be accomplished.

Another suggestion that we offer to trustees and managers is the adoption of an inflexible rule that no physician should be eligible for a staff appointment who already holds one in another hospital. There is always ample professional material that is qualified and deserving without duplicating the service and honors. Unless this is done there will always be a number who, by persistent aggressiveness, will gobble place after place to the exclusion of others who are equally well qualified but more modest in pushing their claims. A cast-iron rule of this character would give very great satisfaction to the entire body of the profession.

A reasonable limit to the length of service allowed to any one man should be determined. In the past men have hung on and hung on to the staff of the Cincinnati Hospital long after their days of usefulness had ended. Ordinarily a man should not hold an active hospital appointment after he is sixty years of age, nor be allowed a continuous service of more than twenty years in the same hospital. These rules should hold good on the principle of "live and let live." If there was a scarcity or poverty of ability in the profession there would be no necessity of drawing such lines, but for the very reason that there is an abundance of talented material from which to draw changes the face of things. And it is none to the credit of the wisest consultant that he allows himself to become barnacled on and in a place where he is no longer useful and excludes the man of the period.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending Nov. 30, 1889.

Ward.	Measles. Cases.	Measles. Deaths.	Scarlet Fever. Cases.	Scarlet Fever. Deaths.	Whooping Cough. Cases.	Whooping Cough. Deaths.	Diphtheria. Cases.	Diphtheria. Deaths.	Typhoid Fever. Cases.	Typhoid Fever. Deaths.	Croup not Diphtheritic. Deaths.
1st	...	..	...	..	...	..	2	..	...	..	...
2nd	...	..	...	..	...	..	1	..	...	..	...
3rd	3	..	...	..	...	..	3	..	...	..	1
4th	...	..	...	..	...	..	1	..	...	..	...
5th	...	..	...	..	...	..	...	..	...	..	...
6th	...	..	...	..	...	..	...	1	...	..	...
7th	...	..	1	..	...	..	...	..	...	..	...
8th	...	..	...	..	3	..	1	..	...	1	...
9th	...	..	...	..	...	..	...	1	...	..	...
10th	...	..	...	..	...	..	1	1	...	..	...
11th	...	..	...	..	3	..	2	..	...	..	1
12th	...	..	...	..	2	..	...	1	...	..	...
13th	...	..	...	..	...	..	2	..	...	..	...
14th	...	..	...	..	...	..	...	1	...	..	...
15th	...	..	...	..		..	2	..	...	..	...
16th	...	..	..	..	...	..	2	..	...	..	...
17th	...	..	...	..	...	..	...	..	...	..	...
18th	4	..	...	..	...	..	...	..	...	..	...
19th	3	..	...	..	...	..	1	..	...	..	...
20th	...	..	...	..	...	..	...	1	...	1	...
21st	...	..	...	..	...	..	...	..	...	..	1
22nd	...	..	...	..	...	1	...	..	...	1	...
23rd	...	..	...	..	...	1	1	..	...	..	...
24th	4	..	...	..	...	..	1	..	...	..	...
25th	1	..	1	..	...	..	2	..	...	..	...
26th	...	..	...	..	...	..	...	..	...	..	...
27th	...	..	.	..	...	..	2	..	...	..	...
28th	1	..	2	.	...	..	...	..	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	2	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	1	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	..	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	16	..	4	..	8	2	26	6	...	4	3
Last week	27	..	8	4	7	..	55	12	...	3	2

The following is the mortality report for the week ending November 30, 1889.

Croup	3	
Cerebro-spinal Meningitis	2	
Diarrhœa	3	
Dysentery	1	
Diphtheria	6	
Entero-Colitis	1	
Typhoid Fever	4	
Whooping Cough	2	
Other Zymotic Diseases	4	26
Cancer	5	
Phthisis Pulmonalis	9	
Other Constitutional Diseases	2	16
Apoplexy	3	
Bronchitis	3	
Convulsions	6	
Heart Disease	4	
Liver Disease	2	
Pneumonia	8	
Other Local Diseases	23	49
Old Age	2	
Puerperal Septicæmia	1	
Other Developmental Diseases	6	9
Accidental	4	
Suicidal	1	5

Deaths from all Causes	105
Annual death rate per 1000	16.80
Deaths for corresponding week in 1888	116
Deaths for corresponding week in 1887	149

Byron Stanton, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 26 **observers for the week ending** November 29, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Bronchitis, acute	14	32
Tonsillitis	12	45
Diarrhœa	10	20
Rheumatism (acute)	9	12
Intermittent Fever	7	18
Measles	5	24
Diphtheria	4	9
Pneumonia	4	4
Erysipelas	4	4
Consumption (Pul.)	4	4
Typhoid Fever	3	3
Whooping Cough	2	3
Scarlet Fever	2	2
Dysentery	2	2
Typho-Mal. Fever	1	3
Remittent Fever	1	2
Pleurisy	1	2
Cholera Morbus	1	1
Puerperal Fever	1	1
Croup, membranous	1	1
Cerebro-Spin. Men.	0	0
Cholera Infantum	0	0

Remarks.

Reports from 69 observers and health officers:

Diphtheria reported by health officers: Columbus, 16 cases, 1 death; Toledo, 24 cases, 4 deaths; Dayton, 8 cases, 1 death; Springfield, 4 cases; Xenia, 5 cases, 1 death; Ironton, 3 cases; Lancaster, 6 cases; Chillicothe, 6 cases, 2 deaths; McComb, 2 cases; Ashley, 2 cases; Bloomville, 1 case; Findlay, 7 cases, 1 death; Zanesville, 1 case; Fostoria, 1 case. Reported by observers at Rocky River, Woodville, Russell, and Oak Harbor.

Scarlet Fever reported by health officers: Toledo, 1 case; Columbus, 4 cases; Akron, 5 cases; Dayton, 2 cases; Chillicothe, 8 cases, 2 deaths; Findlay, 1 case; Wooster, 1 case: Canton, 6 cases; Millersburg, 2 cases; Lima, 1 case; Bucyrus, 4 cases; Youngstown, 2 cases; Ravenna, 6 cases; Painesville, 2 cases; Urbana, 3 cases; Conneaut, 1 case; Springboro, 1 case; St. Paris, 1 case; West Cleveland, 1 case; Massillon, 3 cases. Reported by observers at Canal Dover and Madisonville.

Typhoid Fever reported by health officers: Ironton, 1 case; Fostoria, 2 cases; Norwalk, 1 case; Wadsworth, 1 case; Chillicothe, 1 case;

Bucyrus, 1 case, 1 death; Youngstown, 1 case. Reported by observers at Lorain, Independence, and Middleport.

C. O. Probst, M.D., Secretary.

FOR SALE, ETC.

FOR SALE.—In western Indiana, with lucrative practice, for sale a good two-story frame dwelling, containing twelve rooms, in good repair. The lot without improvements would bring cash $2,500. Improvements, at lowest estimate worth $2,500. Healthy neighborhood, and one of the best in the city. City contains 12,000 inhabitants, is a railroad centre and is improving, having water, gas, and electric works, etc. Will take $4,000 in easy payments. Cause for selling—wish to retire.

3 Address, S. Care of Lancet-Clinic office.

FOR SALE.—A lucrative established practice for sale, with good two-story frame house and office, stables, etc., all in good order. Possession given immediately upon sale of premises, and good will of practice to go with sale. Terms reasonable. Cause for selling—wish to retire.

Address, Dr. C. T. McKibben, Moscow, O.
Or Lancet-Clinic office. tf

FOR SALE.—In western Ohio, property worth $1,500, with practice worth from $1,800 to $2,500 annually. All for $1,200. In a small railroad town of about 200 inhabitants. Best of gravel roads. All main roads are free pikes. Good reasons for selling. No opposition in practice.

Address, J. K., Care Lancet-Clinic.

FOR SALE.—$3.000 cash practice. A fine location in Colorado. No competition nearer than twelve miles. Resign office of Coroner and Surgeon to 800 miles of railroad. Delightful roads, fine climate. Owner has interests elsewhere and must change.

5 Address, Box 8 Elbert, Colorado.

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A fee of $5.00 will be charged for such examinations.

Leonard Freeman, M.D.,
J. C. Oliver, M.D.,
Otis L. Cameron, M.D.,
Oliver P. Holt, M.D.,
Curators and Microscopists.

Are prepared to make examinations of river water, milk, etc., for the typhoid bacilli.

We call the attention of our readers to the advertisement of Messrs. R. A. Robinson & Co., Louisville, Ky., which will be found on advertising page 17 this issue. This firm was established forty-five years ago, and enjoys a widespread reputation as a sound, honest, reliable business house. We do not hesitate to endorse their preparations as being all they claim for them.

Selected.

THE NEW ANALGESICS IN THE RELIEF OF PAIN OF PURELY NERVOUS ORIGIN.

[*Medical Times and Register.*]

Analyzed to the last degree, the practice of medicine consists solely in the relief of pain. Not only is this "a divine work," as Hippocrates used to say, but it is doubtful if medicine, as an art and science, would have any existence whatever if there were no such thing as pain. Were it not for the warning sounded by this symptom, we should die like the flies, without being able to summon timely aid. Even as it is, many a deadly disease advances far in its course before the slight symptoms of pain drive the sufferer to seek medical advice and so have the real nature of his condition made known. Pain, in this respect, is a blessing rather than a curse. Owing to the smallness of human knowledge, it is to be regretted that the causes of pain cannot always be discovered. The symptom, as in idiopathic neuralgia, may be excruciating, but the lesion totally unknown. In such cases the symptoms alone must be relieved. Not unfrequently, however—as in tabes—the lesion is perfectly familiar and possibly amenable to cure, but the fulgurating pains are so terrible to bear that the latter must needs be relieved, for the time being at least, irrespective of the nature of its cause, or the latter's susceptibility to treatment.

Analgesics, therefore, have always held an honored place among therapeutic resources, but heretofore nothing has been able to approach opium and its alkaloids in this respect. The danger of causing the opium-habit, which is unfortunately becoming too frequent nowadays, induces many of our best physicians to dispense with the drug almost entirely, or to employ it at rare intervals and in extreme cases. Morphinomania is a disease for which practitioners themselves are not a little responsible; and it is to be hoped that they will become hereafter even more cautious in their use of these dangerous preparations of opium.

Atropine was the first drug tested with the introduction of the hypodermic method of medication, but the intolerance manifested by some constitutions, along with the occasional fatal results which followed its use, have caused it to be laid aside.

Solanine possesses many advantages in certain spinal affections, particularly in the systematic scleroses of the cord, when accompanied with pain and trembling; but its effects are limited.

Aconitine is a powerful analgesic, but it seems to exercise its force when administered in safe doses only in cases of facial neuralgia. It seems to be absolutely powerless in removing pains due to spinal cord lesions.

We are in need, therefore, of more safe, reliable, and effective analgesics that will cause simply a disappearance of pain, without otherwise injuriously affecting the constitution.

In the last number of the *Bulletin de Therapeutique*, Dujardin-Beaumetz presents a brief and practical *resumé* of the more recent preparations of this class, and offers some remarks upon their relative values in relieving the pains of purely nervous origin. We published (*Times and Register*, October 5, 1889) not long ago a long abstract of this same author's report to the Congress of Therapeutics upon the chemical constitution of these bodies.

Germain-Sée, in 1887, was the first to recognize the analgesic power of antipyrine or dimethyloxyquinizine. Since that time it has been employed and successfully tested in so many painful affections that one is almost prone to regard it as a kind of panacea. But especially is it valuable in diminishing the excito-motor power of the cord and in curing the lightning pains of locomotor ataxia. Dujardin-Beaumetz recommends that the dose should never exceed two or three grammes a day, and if this fails to remove the pains, one of the other analgesics had better be resorted to.

Marshall says that antipyrine appears to be a specific in some diseases—as in gout and migraine. In fact, it would be vain to attempt to enumerate all the cases in which succcess has attended the use of this drug for the relief of pains. Hypodermatically administered, it is more decisive in its action than when given by the mouth. Some observers, like Hirsch, have been disappointed with it when exhibited by the stomach, but when administered subcutaneously they prefer it to morphine. The majority of clinicians prefer the use of small doses by the mouth frequently repeated; and it is always well to tell the patients to lie down after taking it, particularly if they take it in large doses. Weakness of the circulation and disease of the kidneys are the special contraindications against its use.

Phenacetine was first employed, in 1887, by Kast and Hinsberg. There are three varieties, known as ortho-, meta-, and para-acet-phenetidine, the latter being the one most generally prescribed. It is a white, rosy powder, insoluble in water, but slightly soluble in chloroform and alcohol, hence it is best administered in wafers or papers. Fifty centigrammes, repeated two or three times a day, acts like antipyrine or acetanilide in causing the disappearance of pains, whatever may be their character. Singularly enough, this preparation also combats the polyuria as well as the excito-motor functions of the cord. The insolubility of phenacetine is one of its most important disadvantages, and for this reason it is not as available for general use as some others of the same group.

Methylacetanilide, or exalgine, is the latest of these medicaments, and excepting antipyrine, promises to be the most valuable. It appears under the form of beautiful colorless crystals, which are slightly soluble in cold water, but on the other hand are very soluble in alcohol, and even in a mixture of alcohol and water. They are devoid of taste or odor. This substance is an antipyretic, lowering the temperature from one to three degrees, and even more. It also increases the arterial tension and vascular pressure. Its first action is manifested within the nervous system, both sensory and motor; then in the respiratory and circulatory systems; and finally in the heat apparatus. In doses of eighty centigrammes it produces intoxication and vertigo; tolerance, however, can quickly be established. As an analgesic it takes rank with antipyrine, and is sometimes superior both to it and acetanilide.

In the last number of the *Therapeutic Gazette* it is said that "the analgesic effects of exalgine are especially evident in the treatment of neuralgia, and to a less reliable degree in the treatment of pains of a rheumatic character."

In conclusion, then, of all the modern

antithermic analgesics, antipyrine holds the first place, both for its efficacy and ease of administration. Despite the occasional scarlatinal eruption, profuse sweat, and collapse which follow its ingestion, it is no more dangerously toxic than other drugs, if it be administered in doses not exceeding three grammes in the twenty-four hours, and in properly selected cases.

Next to antipyrine comes exalgine, and if the latter were only more soluble, it would be given the preference. It is better to administer this drug in small doses—say twenty-five centigrammes twice a day. An ordinary tincture or alcoholic solution affords an excellent menstruum. In the treatment of neuralgia, Gaudineau experienced only three failures with exalgine, in thirty-two cases. In cardialgia, with attacks of angina, it has acted favorably. In fact, it is praised as the most certain and decided destroyer of pain that we have, irrespective of the origin of the pain.

Because of its extreme insolubility, phenacetine ranks below antipyrine and exalgine. For the same reason, therefore, it is advantageously the most non-toxic of the present group of remedies. It is especially commendable in doses of fifty centigrammes to a gramme, given in powders, to relieve the shooting neuralgias so common among hysterics and neurataxics.

Last of all should be remarked acetanilide, not because it is less powerful than the others, but because of the alarming cyanosis which it produces. It is both active and cheap, and can be easily administered in the form of powders in doses of a gramme to a gramme and a half in the twenty-four hours. The best results with this preparation, as an analgesic, have been obtained in relieving the fulgurating pains of tabes dorsalis. In a few instances of epilepsy it seems to have afforded a cure. But in this class of cases there have been, as usual, frequent failures; nevertheless, when the bromides lose their effect, and the patient is able to bear it, Dujardin-Beaumetz recommends the habit of ordering acetanilide.

Such, in brief, are the more important properties of these new analgesics, and instead of our decrying the recent increase in this respect, we ought to encourage their introduction, and their further careful study. They promise to place at our disposal medicaments that have been long needed, and are more advantageous than any of the same class that we have hitherto employed; but there is need of greater care and precision in the testing of their exact physiological actions, in order to fix their value, and to establish the realization of that promise.

THE INCOMPATIBLES OF ANTIPYRIN.—If extractum cinchonæ liquidum be added to a solution of antipyrin in distilled water a dense reddish-brown precipitate is formed. Upon examination this precipitate is found to contain tannic acid and antipyrin. The liquid extract of cinchona is, therefore, incompatible with solutions of antipyrin, because the cincho-tannic acid present in the extract precipitates it in an insoluble form. The greater part of this precipitate dissolves on the addition of dilute sulphuric acid, the insoluble portion being probably the coloring matter of the bark, for if a solution of tannic acid be used instead of the extract cinchonæ liquidum as a precipitating agent, a pure white precipitate forms, which entirely and easily dissolves on the addition of the dilute sulphuric acid. It follows, therefore, that decoctions, infusions, and tinctures containing tannic acid would act in the same manner. The effect, however, produced by these preparations is very small compared with the liquid extract of cinchona. Antipyrin is not precipitated by solutions of the alkaloids, quinine, cinchonine, cinchonidine. Therefore it can be prescribed in a mixture containing quinine sulph. and acid. sulph. dil. When strong solutions of chloral hydrate and antipyrin are mixed together a white precipitate is formed, which soon becomes resolved into globules of oily-looking liquid, which sink to the bottom and form a distinct layer. This layer, in the course of some hours, changes into a crystalline mass, from which the clear upper liquid can be drained off. These crystals are soluble in water, but considerably less so than antipyrin or chloral hydrate. They have a distinct taste of chloral without its pungency, and they are not so bitter as antipyrin. In solution they give with ferric chloride the characteristic color reaction of antipyrin, and heated with liquor potassæ they evolve chloroform. It would seem, therefore, that this crystalline mass is a compound of antipyrin and chloral, which has been thrown out of solution on account of its sparing solubility. This precipitation does not occur in dilute solutions, and it is possible to mix together a solution containing sixty grains of antipyrin to the fluid ounce with one containing the same amount of chloral hydrate without any precipitate being immediately formed, although in a few hours small crystals begin to appear. A solution containing fifteen grains each of antipyrin and chloral hydrate to the fluid ounce appears to be a permanent one, for at the end of a week there is no appearance of crystalline matter. Clinical experience alone can determine whether mixtures of these two bodies possess any therapeutic properties different from those of the constituents. In prescribing them together it is to be borne in mind that the solutions must be dilute.—*British Med. Journal.*

Treatment of Hydrarthrosis of the Knee.—Dr. Georges Bere has adopted a plan of treatment of synovial effusion, in those cases which resist the usual methods of treatment, which has proved very successful. The treatment consists of a forcible rupturing of the synovial sac, which he terms *éclatement*, and which is followed by massage. The knee is semiflexed, when it may be noticed that the fluctuation is more marked above and inside the knee; the fluid is circumscribed, and the tumor formed is rendered tense by pressure with the hand; firm pressure with the thumb, or percussion with the edge of the closed hand, will produce an indentation, followed by a diminution of fluid effused. There can be no doubt but that a rupture or fissure of the synovial sac takes place at its weakest point—perhaps at the level of its insertion; the fluid permeates in the neighborhood of the lymphatics and veins, which are so abundant in the cellular tissue surrounding the joint. The rupture is easily effected in recent cases, as the membrane has not become thickened, and possibly the effusion is more liquid. After the *éclatement* massage must be persevered with, directed from the knee toward the groin, the form of massage being strong and deep centripetal pressures. The method is as free from danger as it is simple in execution.—*Provincial Med. Journal.*

One of the best agents to abort a coryza, according to Dr. Beverley Robinson, is carbonate of ammonia, in frequently repeated and rather large doses.

CHRONIC TUBERCULAR ENDOMETRITIS.

[*N. Y. Med. Journal.*]

Dr. Jouin says that this form of tuberculosis is more frequent than tuberculosis of the other mucous membranes of the genito-urinary apparatus. This may be due to the fact that the mucous membrane of the body of the uterus is soft, spongy, and rich in tubular glands, these conditions being favorable to the development of an anærobic parasite. It has been observed and described to a certain extent by Louis, Aran, Bernutz and Goupil, and Verneuil, but the primary form has not been distinguished with sufficient clearness from the secondary by any one of these writers. Fernet described primary genital tuberculosis in a female, and spoke of its origin from sexual contact with a tuberculous man. Cornil and Chantemesse have also produced it artificially in rabbits by the injection of bacilli into the vagina. The author's studies included nine cases, in two of which the disease followed sexual intercourse with men suffering from genital tuberculosis. In two others the husbands were tuberculous, but had no apparent genital tuberculosis. In three others the cause could not be ascertained, and in the remaining two the cause was also uncertain. The diagnosis was verified once by the microscope and twice by the peritoneal inoculation of guinea-pigs. The disease is primarily a tubercular degeneration of the endometrium, but the uterine parenchyma and perimetrium may also be involved. The predisposing causes may be heredity and bad general condition, also ruptures of the cervix and repeated attacks of inflammation. The determining causes are the bacilli and sputa upon soiled linen, or even upon various instruments, and especially sexual relations with a tuberculous husband. The fungosities upon the endometrium in these cases contain bacilli, with which guinea-pigs have been successfully inoculated. As to symptoms, the patient is the subject of leucorrhœa, pain in the abdomen, scanty micturition, constipation, and sterility. After a time the uterus becomes much enlarged and very sensitive to the touch, also more or less fixed. The cervix is red and perhaps ulcerated, and a sanious matter is discharged from the canal. The patients are much more prostrated than in simple endometritis, and have emaciation, fever, sweating, and arthritic troubles. Without proper care this condition will extend to the lungs, but it may be arrested by local treatment. The diagnosis is to be made by histological and microbiological examination, but also by observing certain clinical phenomena. The disease does not begin after labor nor after blennorrhagia; the patient may not have had children, and the lungs may already present tubercular lesions. The primary form of the disease is not serious if properly cared for; the secondary form implies tubercular disease elsewhere. In treating the disease the patient should first receive creasote. Curetting may be practiced, if thoroughly done, and the mucous membrane should then receive an application of creasote. Pencils of iodoform may also be introduced into the uterus, the organ having first been well dilated. This should be repeated every twelve days. Sexual intercourse should be abstained from as long as the disease continues. The hygienic and dietetic conditions must, of course, be as favorable as possible.

NON-TUBERCULAR HÆMOPTYSIS. — In an address delivered before the Medical Society of London, and published in the *British Medical Journal*, Sir Andrew Clark gave the results of his study upon a form of non-tubercular and non-cardiac hæmoptysis occurring in elderly persons. He cites several instances of this variety of pulmonary hemorrhage, or arthritic hæmoptysis—as he ventures to call it—and after a brief consideration of its main characteristics, draws the following conclusions:

1. There occurs in elderly persons free from ordinary diseases of the heart and lungs, a form of hæmoptysis, arising out of minute structural alterations in the terminal bloodvessels of the lung.

2. These vascular alternations occur in persons of the arthritic diathesis, resemble the vascular alterations found in osteo-arthritic articulations, and are themselves of an arthritic nature.

3. Although sometimes leading to a fatal issue, this variety of hæmoptysis usually subsides without the supervention of any worse anatomical lesion of the heart or of the lungs.

4. When present this variety of hemorrhage is aggravated or maintained by the administration of large doses of strong astringents, by the application of ice-bags to the chest, and by an unrestricted indulgence in liquids to allay the thirst which the astringents create.

5. The treatment which appears at present to be the most successful in this variety of hæmoptysis consists in diet and quiet, in the restricted use of liquids, and the stilling of cough; in calomel and salines; in the use of alkalies with iodide of potassium, and in frequently-renewed counter-irritation.

ASTHMA AND THE UTERINE SYSTEM. —Dr. Peyer has recently written on an affection which he terms sexual asthma. He maintained that asthma was always neurotic, and that in different subjects asthmatic convulsions were brought on by the influence of different physical functions. In two young married women coitus caused violent attacks of asthmatic sneezing. In another case the patient suffered from uterine fibroid, with severe asthma, which disappeared after the removal of the tumor. A patient was subject to violent asthmatic fits; on her becoming pregnant for the first time, the asthma was completely cured. In a similar case of asthma, the patient suffered from chronic metritis. When the uterine affection was cured, the asthmatic complication disappeared. In all Dr. Peyer's cases the patients were more or less hysterical, and in two there was a distinct family history of neuroses. The physician must be careful now to distinguish between the possible coincidence of true asthma and disease of the sexual functions and the alleged form where the former is an effect of the latter. In the case of coincidence it is perfectly easy to understand that any aggravation of uterine or ovarian disease and any irritation of the the sexual functions might aggravate the asthma. The other condition is less easy to understand, and very hard to prove in a scientific manner.—*British Med. Journal.*

FRUITS, to do their best work as correctives for disordered digestion, should be eaten at the beginning of a meal, and not after oily foods—meats, vegetables, or high seasoning—when they become more of a curse than a blessing.

SAMPLES of Sander & Sons' Eucalypti Extract (Eucalyptol), gratis, through Dr. Sander, Dillon, Iowa. Eucalyptol stands foremost as a disinfectant, is a perfect check to inflammatory action, and invaluable in symotic diseases.

OCULAR DEFECTS AND THE NEUROSES.

[*N. Y. Medical Journal.*].

The Commission on the Treatment of Epilspsy and Chorea by the Correction of Ocular Defects presented its report to the Neurological Society on November 5, as we have already announced. The terms of the original agreement made between the commission and Dr. Stevens, the changes in the original plan, the difficulties encountered by the Commission, together with a summary of cases, were set forth in due form. Dr. Stevens replied with some spirit, and endeavored to explain certain ambiguities with the same freedom of speech that had characterised criticisms of himself and his methods. The evening was unique in the annals of neurological science, and those who were absent missed much that printed accounts are powerless to convey. An obstreperous chorus chimed in now and then, like the bassi profundi and the tenori robusti of the opera who had forgotten their parts and gave forth notes at the wrong moment. Some fair-minded members, who believed in aiming straight at the target and hitting the bull's-eye every time, suggested that the speaker should not be interrupted, as the reader of the report had been listened to in silence. A good deal of the discussion was controverted and personal, recalling in a measure the "Society upon the Stanislaus" as described by "Truthful James." When all was told—and it took some hours to tell it—the fact remained that six patients out of fourteen had been improved by ocular tenotomy, though none of them had been cured. Now, what does this prove, and does it prove anything? It would seem to prove that Dr. Stevens's method is a therapeutic measure valuable as an adjunct, and that, in certain cases where toxic medication is unwise, it constitutes one more means of alleviating suffering. This fact remains, according to the report of the Commission, and in spite of the frank fencing-match in which adjectives were the weapons used. "Wisdom suggests leaving words for facts, since facts form a more rational basis for theories." Hypnotism is, in a certain sense, a new remedy. It does relieve, though it may not cure. Though its future is difficult to prophesy, shall it be abandoned and ignored? Ocular tenotomy has relieved in certain given cases, but cured in none of them. Is it an utterly despicable method of procedure, without a leg to stand on? Let the fair-minded physician investigate the matter for himself, remembering that science and preconceived opinions are incompatible. Tenets are fixed, while science is progressive. According to Erichsen, in his address at King's College, the real object of medical education is to train the mind to remain open to the reception of truth throughout life, and to meet the varying emergencies of a professional career. The mind ever open to truth is the fair mind, and the verdict of the fair mind is the only one worth having.

OPHTHALMIA PHOTO-ELECTRICA.—According to the *Deutsche Medizinal-Zeitung*, Lubinski has observed a peculiar form of inflammation of the eyes, usually in persons employed about electric lights, to which he has given the name photo-electrica. It appears to be due to looking at the very bright light from a short distance, without proper protection to the eyes, such as dark glasses. Soon after thus looking at the light a succession of bright spots appears before the eyes, each remaining but a short time and then being replaced by another. During the following night the patient suffers severe ocular pain, with lacrymation and photophobia. The lids are swollen, the movements of the eye are painful, and there is circumcorneal injection, with hyperæmia of the entire eye. This condition continues from an hour and a half to three hours. Then the patient falls asleep and awakes in the morning apparently well, except for a tired feeling in the eyes. The retinæ are still hyperæmic, and sometimes venous pulsation can be seen. Lubinski recommends cold applications, very frequent instillations of cocaine, and chloral or quinine with morphine.—*New York Medical Journal.*

THE RADICAL CURE OF NASAL CATARRH.—Some time since, Sir Andrew Clark recommended the application of glycerine and carbolic acid to the nasal mucous membrane as an effectual way of bringing about a permanent cure of that distressing and common affection, a cold in the head, by virtually destroying the membrane, the abnormal reaction of which to slight stimuli was the source of the mischief. Although he stated that it had given excellent results in his hands, we have not heard since of its having come into general use, possibly because, though a reliable, it was likewise a very painful and exceedingly disagreeable proceeding. An American physician, practicing in a country and a climate in which coryza is chronically epidemic and among a race of men who have inherited the Anglo-Saxon proclivity to catarrh, has suggested a measure founded on a similar principle, which, however, is claimed to be equally effectual and painless withal. He recommends the application, by means of a plug of cotton-wool on a suitable stem, of solutions of chromic acid, varying in strength from one to ten per cent., the former being powerfully astrigent and the latter not less powerfully caustic. He points out that in proper strength chromic acid instantly combines with gelatinous and albuminous substances to form a tough, leatherlike compound. It is essential to operate with a perfectly pure acid, or pain will otherwise be felt. He recommends giving 1-200 of a grain of atropine shortly before making the application, in order to lessen the flow of mucus. The parts are then carefully examined and the sensitive spots mapped out for the subsequent application of the acid in a from five to eight per cent. solution. It is advised to operate on the two nostrils separately.—*Med. Press and Circular.*

CORROSIVE MERCURY AND TURPENTINE IN DIPHTHERIA.—Dr. Kœnig: As I reported to this society some time ago the success I had had in the treatment of diphtheria by local applications of corrosive sublimate and turpentine, I desire to report the following fatal case. This case was the third in the family, two recovering. The local treatment applied was one grain of corrosive sublimate in one ounce of spirit of turpentine. The application should have been made every three hours, but owing to the restlessness of the patient it was omitted in the night. The primary seat of the membrane was the nares, and there was also a spot as large as a quarter upon the roof of the mouth. The membrane was black, hemorrhagic, and the child died, despite everything I could do, on the fourth day, from bleeding at the nose.—*Allegheny Co. Society.*

THE NEUROPATHIC ORIGIN OF EDEMA.

[*Buffalo Medical and Surgical Journal.*]

Since Ranvier's classical experiment on the production of edema, the nervous origin has been undisputed. It will be remembered that he tied the inferior femoral vein, yet edema did not result; but on dividing the sciatic nerve, edema appeared throughout the area of its distribution. These experiments have been repeated by various observers, with identical results. Vulpian believed this to be due to trophic changes in the walls of the vessels. Then Lewaschew made experiments in proof of this theory. He operated on adult dogs. The naked sciatic nerve was exposed, as near as possible to its exit from the pelvis. On one side, he passed through the nerve-trunk a thread saturated with a solution of sodium chloride, so as to produce a more or less acute inflammation. After a short time he found a corresponding spot, hot and tumefied. After killing the animal, he examined the arteries in the healthy paw, and also in the paw on the operated side.

The large arteries toward the thigh presented nothing appreciable, but in the arteries toward the extremity he found, here and there, spots more or less profoundly inflamed, characterized by a turgescence of the vasa vasorum and the existence of lymphoidal elements in the external and middle tunic. In some cases the internal tunic shared in the inflammatory proliferation, thus showing endarteritis to be developed more and more as we approach the periphery, where, be it remembered, the vaso-motor action is at its maximum.

We have seen, in practice, similar edemas as the result of nerve wounds.

Weir Mitchell called attention to this, in 1864, in his report on gunshot wounds and other injuries of nerves. He classed these edemas with the other trophic change described by Paget under the name of glossy skin.

In our own practice, we have recently seen edema of the arm in a case of brachial neuralgia, due, probably, to neuritis. As the pain subsided, the edema disappeared. These edemas may subside and reappear as the nerve lesion is improved or is newly aggravated.

Matthew and Weil, in a joint paper, described three forms which the edema presents:

"In one case it is found to be white, soft, and easily depressed, and not painful. Again, it may be hard, sensitive on pressure, and gives a sensation of tension."

In a third class of cases "The swelling is accompanied by a feeling of smarting, lancinating against the sides in the diseased parts. The skin is hot, shining, and tender, and varies in color from a bright rose-tint to a sombre red. This form, from its clinical history, we have named pseudophlegmonous."

As we find edema dependent on peripheral nerve lesions, so we find edema due to disease of the cerebro-spinal axis.

This is frequently seen in paralyzed limbs after hemiplegia, and in acute myelitis. Vulpian described it as appearing in epidemic cerebro-spinal meningitis. We ourselves have seen it in infantile paralysis. This edema is by no means dependent upon the paralysis, although it frequently accompanies it. In cases of tabes, edema has been observed to appear where there was no paralysis, but when there was a crisis of pain.

We have called attention to this subject, as it is one of great importance and, unfortunately, but little noted.

TREATMENT OF OBESITY.—(*Revue de Therapeutique.*) Frequently the practicing physician is called upon to treat obesity in women where this morbid condition constitutes a most tiresome infirmity, and is often a complication of most of the affections of the feminine sex. We advise a faithful trial of the method of Schwenninger and Oertel, which has given so many excellent results in Germany. The following are the indications which have been laid down by these savants:

1. Elevate the tone of the muscular force of the heart.
2. Maintain the normal composition of the blood.
3. Regulate the quantity of liquid in the economy.
4. Prevent the deposit of fat.

The above indications are observed by the following methods:

1. The cardiac muscle is increased in tone by the augmentation of physical exercise—for example, by ascending elevations. It is necessary to progress with caution; the exercise will be gradual and the amount of work proportionate to the resistance of the subject.

2. To maintain the normal composition of the blood it is necessary that the alimentation should be principally albuminous; it will consist of the lean of beef, roast or boiled, veal, mutton, game, and eggs. We can add green vegetables, such as cabbage and spinach, but fat and hydrocarbons shall be given only in small doses—for example, the amount of bread should not exceed 120 to 180 grammes a day.

3. We should limit each day the quantity of drink—180 grammes of coffee, of tea, or milk; 360 grammes of wine; 240 to 480 grammes of water will complete the amount of liquid absorbed in the twenty-four hours. Beer is entirely forbidden. Then, again, transpiration is excited by energetic exercise as well as by baths and coverings.

4. Lastly, the deposit of fat is attacked by the practice of the above-mentioned principles of dietetics. This, for example, is how we should proceed:

Morning.—The cup of tea or coffee, with a little milk, will represent a total of about 180 grammes, and about 90 grammes of bread.

Noon.—From 80 to 100 grammes of soup, 210 to 240 grammes of beef, roast or boiled, veal, game, salad or vegetable, a little fish if desired, but cooked without fat, 30 grammes of bread or farinaceous pudding (never more than 90 grammes), 90 to 180 grammes of fruit in season, for dessert. It is preferable not to drink at the repast, but in hot weather we can allow from 180 to 240 grammes of a light wine.

Afternoon.—The same quantity of tea or coffee as in the morning, with, as a maximum, 180 grammes of water and 30 grammes of bread as an exceptional concession.

Evening.—One or two boiled eggs, 30 grammes of bread, perhaps a little slice of cheese, salad, and fruits; 180 to 240 grammes of wine, with 120 to 150 grammes of water.—*Medical Times and Register.*

VASELINE and water may be mixed by the addition of two drops of castor oil to each gramme of the liquid. By this means iodide of potassium may be introduced into an unguent without danger of decomposition.

THE DIFFERENTIAL DIAGNOSIS OF VACCINATION SYPHILIS.

[*British Medical Journal.*]

The *Deutsche med. Zeitung* of July 18, 1889, reproduces a summary of Professor Fournier's clinical lectures on this subject by Dr. P. Portalier. The lines of distinction between syphilitic and other appearances are drawn with equal clearness and elegance by the French syphilologist.

I. Differential diagnosis between vaccinal ulcers and primary chancre: The latter never develops before the fifteenth day after vaccination, the time required being mostly three weeks; twenty days after inoculation it is still in its earliest development. A "vaccination ulcer" is present, if ever, twelve or fifteen days after vaccination; after twenty days it is fully developed. The clinical differences are as follows: In the case of vaccination ulcer, (1) all the pustules are affected as a rule; (2) much inflammation and ulceration; (3) deeply-excavated chancre; (4) much suppuration; (5) irregular margin as in soft chancre; (6) floor of ulcer uneven, suppurating; (7) inflammatory induration; (8) inflammatory, erysipelatous areola; (9) gland swelling none, or else inflammatory; (10) complications often present, sloughing, erysipelas, etc. Syphilitic ulcer: (1) Is restricted to one or a few pustules; often these do not develop; (2) the inflammation is slight; (3) the loss of substance is superficial; (4) suppuration is scanty or absent; crusts form; (5) border not notched, slightly elevated, gradually lost in floor; (6) surface of floor smooth; (7) the "parchment" induration is specific, not merely inflammatory; (8) hardly any inflammatory areola; (9) gland swelling constant, indolent; (10) complications rare.

II. Differential diagnosis between vaccination rashes and secondary syphilitic eruptions: Under the former are comprised roseola vaccinalis, miliaria vacc. vaccina bullosa, and hæmorrhagica, also accidental rashes, rubeola, scarlatina, lichen, urticaria, etc. A true vaccinal rash (1) appears between the ninth and fifteenth day after vaccination; (2) absence of inoculation chancre; (3) eruption has not syphilitic characters; (4) is attended with fever; (5) is evanescent. A secondary syphilitic eruption (1) appears, at the earliest, nine or ten weeks after vaccination; (2) requires the pre-existence in every case of a specific ulcer at the site of vaccination, that is, to constitute the rash due to vaccination; (3) shows the characters of true specific eruptions; (4) is not attended with fever; (5) lasts a long time; (6) is accompanied as a rule with specific appearances on the mucous membranes.

III. Differential diagnosis of vaccination-syphilis from hereditary syphilis, which may show itself about the time of vaccination: Vaccination syphilis (1) begins with a local affection, chancre, and indolent bubo; (2) has a typical development in four stages, namely, incubation, chancre, second incubation, generalization (secondary rashes, etc.); (3) never appears earlier than the ninth or tenth week after vaccination. Hereditary syphilis (1) has no chancre, but begins with general phenomena; (2) has no typical development after vaccination; (3) is wholly independent of the latter as to time; (4) is attended by the habitus syphiliticus, or syphilitic bodily aspect; (5) other manifestations of hereditary lues may be present; (6) the history may indicate syphilis.

The only point in the above admirable summary requiring correction is the statement that a secondary syphilitic rash is not attended by fever.

TRANSMISSION OF SYPHILIS BY SURGICAL INSTRUMENTS.—M. Lancereaux, at the last meeting of the Académie de Médecine, spoke on the "Transmission of Syphilis by Instruments." A man came to consult him for a papulo-pustulous eruption covering the entire body, which on examination proved an acneic form of secondary syphilis. No trace of any primary sore could be detected, and the man stoutly denied having ever contracted any venereal disease, and in the course of conversation he said that previous to the present eruption a sound had been passed twice into the Eustachian tube, and after the second operation a bloody discharge took place. M. Lancereaux had no hesitation in incriminating the instrument in question. Another case was that of a woman, aged thirty-six, who got some teeth extracted and artificial ones placed in their stead. Shortly afterwards the gums became painful and swelled, the ganglions of the neck enlarged, and subsequently a papulous eruption appeared on the body characteristic of secondary syphilis. The usual specific treatment was ordered and the woman got well. Transmission of venereal diseases by dentists' instruments was more common than generally believed, as well as the razor of the barber. Consequently he would strongly advise that that class of persons should be compelled to have proper disinfectants at hand, and that after every operation the instrument should be plunged in the germicide solution.—*Medical Press and Circular.*

SORE NIPPLES.—Dr. J. Eliott Langstaff, of Brooklyn, writes to us as follows: If the following sentence, "a sore nipple causes great pain when the child nurses," which occurs in a very valuable "System of Obstetrics," were reversed, it would approach my experience with this important disease. I have found that great pain when the child nurses is generally *followed* by inflammation, excoriation, fissure, and sometimes mastitis. This pain, which is the first symptom of sore nipple, is caused by the sudden tension on the lactiferous ducts produced by the child each time it begins to nurse. Until the nipple is elongated sufficiently to fill the child's mouth and allow it to swallow without losing its hold, there is a constant jerking, with friction between the tongue and nipple. Acting on this theory, I have directed the mother or nurse to manipulate the nipple and areola between the thumb and two fingers, using vaseline and drawing gently outward for about a minute. The child is then put to the breast and nurses quietly, saving the mother that agonizing pain which is generally experienced in the case of a short nipple. I have yet to hear of a case where pain has not been relieved by this method, and I have seen deep fissures heal in a few days after this relief from pain. If mothers were treated for retracted nipple immediately after each confinement, there would be very few cases of sore nipple, and as long as the women of the present day will not recognize the evil effects of the corset, there will exist this condition of short nipple.—*N. Y. Medical Journal.*

THE best antidote to carbolic-acid poisoning is soap, which should be taken at once and repeatedly.

A NEW ADVANCE IN THE TREATMENT OF UNUNITED FRACTURE.

[*N. Y. Medical Record.*]

Every surgeon knows how difficult it is in certain cases to get a broken bone to heal by bony union. The ends may be pegged and hammered and sutured indefinitely without success. In the case of fracture of the radius there are oftentimes special difficulties, since resection—the last resource of the surgeon—leaves a gap between the ends of the radius, which is now shorter than the ulna beside it, and so it is almost impossible to bring the bared ends of the fractured parts into apposition and to keep them there. Even if a piece be cut out of the unfractured ulna, so that the inequality in the length of the two bones is removed, a satisfactory result cannot always be obtained. In the *Lancet*, October 26, 1889, Professor McGill, after commenting upon the above facts and relating his failure with the last-mentioned procedure, explains a new method which he applied successfully in one case, taking the hint from a suggestion made by Dr. MacEwen, who proposed, in case of destruction of the shaft of the humerus by acute necrosis, that a new shaft should be secured by transplantation of bits of new bone.

In Professor McGill's case a man, twenty years of age, had fractured both bones so that the ends of the radius protruded through the wound on the radial side of the forearm. The ulna healed quickly and well, but the radius remained ununited, although the ends had been refreshed and wired three months after the accident. Some eight months afterward he came to the hospital. He had a scar over the wound, and the ends of the radius were quite movable, the usefulness of the forearm and hand being much impaired. An Esmarch's bandage was applied and an incision was made in the line of the old scar. The ends of the bone showed no signs of union, but were rounded and covered by a thick membrane-like periosteum. When this had been filed away, an interval of three-quarters of an inch was left between the fragments. This interval was filled with thirteen pieces of bone, each about one-sixth of an inch in length, chiselled from the femur of a freshly killed rabbit. The bones were not wired. The skin-wound was tightly stitched, without drainage, with catgut. Firm pressure was applied by means of salicylated wool and bandages, and the forearm was placed on an anterior splint. There was no suppuration and very little discharge. The patient left the hospital in six weeks, with the bone firmly united. Three months later the injured arm was as useful as the other. Is it not possible that this method used by Professor McGill may be of service in the treatment of old ununited fractures in other parts? It is possible that a more vigorous action might be set up, by presence of the implanted healthy bone, than would naturally occur in the fragments of a fractured long-bone in a person of feeble constitution.

EXTIRPATION OF THE RECTUM AFTER KRASKE'S METHOD. — At the Société de Chirurgie, M. Routier gave some very interesting details of a case of "Extirpation of the Rectum" according to Kraske's method. At the end of the month of August he was consulted at the Laennec Hospital by a woman of twenty-eight, who was suffering, she said, from an affection of the uterus. Examination through the vagina revealed nothing abnormal about that organ, but behind the finger touched upon a tumor, which seemed to be in the rectum. On being questioned, she said that for some time she had suffered much from defecation, and the matter was often tinged with blood, but did not otherwise pay attention to it, as she thought it was the effect of piles. The rectum was immediately explored, and at the height of about three inches the finger felt an irregular swelling, which was easily diagnosed as cancer. Extirpation of the rectum was impossible, and the tumor was too low down to be reached through the abdomen. But, on the other hand, the patient was too young to be afflicted with an artificial anus, so he determined to try to extract it by the sacrum. Recently he made a voyage in Germany, and at Heidelberg he witnessed certain uterine operations effected through the sacral region, and he was so well satisfied with what he saw, that he promised himself to try this method on the first opportunity. After a rigorous intestinal antiseptic treatment, the patient was put under chloroform and an incision was made a little to the left of the sacral spines right down to the tip of the coccyx. Resection of this bone was then made, and a lateral piece of the sacrum was also removed by the gouge. The rectum was seized and detached from the sacrum behind and from the vagina in front. A silk ligature was placed above the cancer and another beneath, and then the diseased parts were removed with some neighboring ganglions. Both ends of the intestine were united by a double row of ligatures, one for the muscular coat, the other for the mucous. A plug of iodoform gauze was inserted, the wound in the sacrum dressed by the same substance, and the operation was terminated, having lasted two hours. The patient has been doing well ever since. She was kept on milk diet for a week, but, unfortunately, at the end of the seventh day he allowed her solid food, and the result was a small stercoral fistula, which, however, he expected would heal of itself. He added, in conclusion, that the sphincter was left untouched, a point which he considered of great importance.—*Med. Press and Circular.*

THE HEREDITY OF BONE-TUBERCULOSIS. —Dr. Dollinger, of Budapest, (*Centralblatt für Chirurgie*, No. 35, 1889,) finds as the result of several years' observation that the parents of children suffering from tuberculosis of the bones or joints are seldom tuberculous, but that frequently one or more of the grandparents were afflicted with pulmonary tuberculosis. He examined 250 persons suffering from tuberculosis of the bones and joints with reference to this point. In 153 cases no history of tuberculosis in parents or grandparents was obtained, but in most of these the cause of death of their deceased relatives was not known. In 97 cases the parents or grandparents were suffering from, or had died of pulmonary tuberculosis; in 31 cases the parents were tuberculous and in 60 the grandparents were afflicted with the disease. On the ground of these findings, the author concludes that bone-tuberculosis appears more frequently in the grandchildren than in the children of tuberculous persons, and that the bones must be subjected for several generations to the influence of tuberculous virus before they are a good soil for the growth of the bacillus.—*Intern. Jour. Surgery.*

Miscellany.

PARISIAN MEDICAL CHIT-CHAT.

"Feuilleton" of the *Journal de Medecine de Paris.*

TRANSLATED BY T. C. M.

A week with a great admixture of incidents, the struggle for life and the *Feast of the Dead.* That a medical journal should have something to say of *All Saints Day* is a little singular, we will admit. Yet is not Death the eternal enemy of Doctors, the continual object of their investigations and the recipient of their therapeutic efforts, that great King of Terrors against whom are aimed the artillery from our medical arsenals—our surgical batteries and our pharmacological fire of pills? Ah! horrible Death, do we not seek to protect all from its fell assaults, are we not an army of brave Æsculapians, men of large and small minds, illustrious and obscure practitioners, some full of audacity, others timid in sight of the enemy? Let the world say what it will, let those bad tongues that abuse Medicine wag on, those evil tongues that pretend that Hippocrates trafficked in the death of his clients and received from Pluto so much per hundred for all the souls sent to Hell by the God of Medicine—so much per hundred did we say? *lasciate ogni speranza.* Yes, Death is the only great problem that theoretical medicine seeks to elucidate; was this not the supreme desire of the immortal Bichat, who, in spite of his genius and best efforts, failed to solve this deepest of all mysteries, concluding with these vain words: "*Death is the cessation of vital functions.*"

A few days since, on *All Saints Day,* we wandered out in the cemeteries adjacent to Paris, with two hundred thousand other Parisians who went to strew flowers and crowns over the tombs of our blessed dead —a crowd filled with curiosity and tears. Paris has twenty-one cemeteries, and these crowds respired the air exhaled from the many tombs—a funereal and peri-cadaveric atmosphere; we, ourselves, visited Pere La Chaise and the crematory furnace. Are you a partisan of cremation? Let us lay aside all religious sentiment, which shall not be included, although our profession be really sacerdotal and the doctor is the priest's closest relation. Let us not discuss the topic from a theological standpoint, but simply note the relation of cremation with legal medicine and hygiene.

Is it true that cemeteries are centres of infection? We went to the graveyard with others on All Saints Day and stood by our father's grave for only a moment. We had traversed narrow alleys filled closely with tombs on each side, the air was full of moisture, it even rained, the ground was muddy; very well! there was not the least bad odor. We only remarked the abundance of beautiful perfumed flowers, the fresh unblown blossoms of the last fair days of summer, that faithful friends had tenderly laid on the resting-places of the dear departed; there was not the slightest suspicion of any mephitic exhalation. This is not surprising when we know the antiseptic precautions taken at the present day with our dead. Sawdust and powdered charcoal with sulphate of zinc insure the safety of the soil around the grave, while the body itself is embalmed and the remains are no longer a festival-place for worms, as in the olden days; the worm-eaten body now only figures in legends.

Incineration has the objection of effacing all traces of crime; this is proven by the experiments of that learned man, Pel, the watchmaker poisoner who burned his victims in a furnace; the assassins of the younger generation all welcome the crematory. Only fifty francs is the cost for obliterating all traces of crime; for the pauper dead no charge is made, and the poor of Paris, when they wish to escape dissecting-rooms, now order their bodies to be turned over to the Cremation Society.

Late French statistics show that our countrymen die too fast, or rather they breed too slowly. In the year 1700 France had thirty-eight hundredths of the population of great European powers, *i.e.,* France, England, Russia, Germany and Austria; in 1789 France represented but twenty-seven hundredths of the total population; in 1815 the proportion fell to twenty hundredths, and in 1886 it was still less; the following are the present figures: France, 37,200,000; England, 34,800,000; Austria, 39,000,000; German Empire, 35,610,000; Russia, 84,500,000; Italy, 28,600,000.

It is not necessary to be a pessimist to exaggerate the bearing of these statistics. The population of France has *really* shown a steady increase since 1789, when it was 26,000,000; in 1815 there were 29,500,000 inhabitants, and this centennial there are 38,219,000 persons by actual count, which shows an increase of 12,219,000 in population for one century; but the increase in other countries has been more rapid than in ours. Certain philosophers claim this to be due to the Laws of Malthus, of voluntary sterility from motives of economy, harmful sexual practices, laws and customs that do not protect the poorer and more fecund families of France. Yet, it seems to us that fecundity has differed among races of men from time to time, as it does among all species of animals; and it would not be surprising to see the Sclavs and Teutons, more prolific nations than ours, propagating and spreading over greater amounts of territory than ours; we have seen how rabbits have invaded and spread over Australia, while lions and tigers are daily decreasing in numbers and becoming as rare as beavers. Meantime, it is well to recognize the decreased birth-rate of France. While there are actually 248,188 French families having seven children, there 313,400 having six children, 549,693 having five children, 936,853 with four, 1,512,054 with three, 2,265,317 with two, and 2,512,611 families having but one child; the remainder of the French families are childless. Let us hope that the law protecting families having seven children (exception from all personal and realty tax), the suspension of tabetic patients and Brown Séquard's regenerative potion, together with the artificial impregnation of old maids,—lately proposed by a new law-maker,—will increase the fecundity of the French and enable them as a race to continue their struggle for a glorious national life.

Charles Naudin, the great botanist of the French Institute, has turned poet and has written a fable called "Wolf Philosophy," of which the *Journal d'Hygiene* has published extracts. We cull a couplet ourselves:

"En ce monde tout vit au detriment des autres;
Les muotons, sans remords, broutent les vegetaux,
A leur tour les moutons donnent leur chair aux notres,
Nous memes (les loups) nous tombons sous le plomb du chasseur."

Let us admit it is true that sheep eat vegetation without remorse, and we in turn eat the mutton, only to find ourselves killed by the lead of human hunters in the struggles of war; but we will not reproach the honorable physician, Charles Naudin, on the singularity of his verses. The struggle for life is a monstrous topic when viewed from all standpoints, and extends from the gnat to the elephant, not to mention those infinitely small and cute little microbes, who triumph over those even more infinitesimal probably.

It is cruel in medicine, as in politics, to joke at insanity. It is a terrible accusation against those who are its object, as well as those who have really lost their reason. It is a thing that cannot be doubted, yet there remain many cruel facts and sometimes regrettable errors. *Le Rappel* has just published a most touching protestation of an unfortunate confined at Bicetre; this letter contains only legitimate exaggerations, or rather the indignation, that any man would express under similar circumstances. Shall we believe this poor fellow's statement? Whether his complaint be just or not, it is sad, and an error in diagnosis in matters of psychiatry appears so frightful that the immurement of persons for insanity should be hedged about with extraordinary precautionary measures.

For once we coincide with the opinion of *La Lanterne*, whose habitual and dangerous antagonism when it sustains a bad cause becomes very precious in a contrary case; this journal insists on the intervention of the Court in all medical consultations on the subject of insanity. Dr. Rouilland insists on the certainty of medical diagnosis and the incompetency of the magistrates; *La Lanterne* replies that the infallibility of medical science may be accorded to alienists, but that the same cannot apply to all doctors who have not made insanity a special study; it likewise claims that the Court should insist on a diagnosis being made by competent and special experts.

We notice that Dr. Lancereaux has recently expresssed some positive opinions before the Council of Public Hygiene relative to sanitary regulations to be imposed on hair-dressers and barbers. Antiseptic prophylactic measures are advocated in certain capillary conditions, and the disciples of Figaro, who are usually careful, are obligated by restrictions. The contagious maladies of the hair are all manifested by marked objective symptoms, and

hair-dressers and barbers should refuse to dress such heads except under special conditions. The hair-dressers of Paris protested against these measures in a public meeting, and, after many imprecations against antiseptic doctors, resolved in most sarcastic resolutions that Lancereaux and his colleagues should be immersed in the phenic acid hair-wash they advocated, as such sanitarians were naturally dirty and needed ablution and disinfection.

OUR MEAT AND DRINK.

So it has come to this, that men
Must dine no more on flesh again,
The chances being nine to ten—
Tuberculosis.
The thought's enough to there and then
Cause cyanosis.

I wonder what *is* safe to eat!
Swine seems as bad as butcher's meat,
For porcine flesh they say's the seat
Of trichinosis,
And even tea, that household treat,
Brings on neurosis,

They are all tabooed—well let them go!
What though it brings my system low,
And fond friends cry in tones of woe,
"He has got chlorosis!"
Impoverished blood is less a foe
Than scrofulosis.

Farewell my modest evening tea!
Microbic flesh depart from me!
Seductive beer it may not be!
Who wants cirrhosis?
E'en sugar's not suspicion free,
There's teeth necrosis.

No more the cherished hope I'll hug
That all this cry is mere humbug;
Henceforth I'll feed on "flesh that's dug."
If plants have "oses,"
I'll swill some antiseptic drug
In treble doses
—*London Hospital Gazette.*

* * *

A Medical Papa.—A young St. Louis medico, who became a benedict about a year ago, was in the *Journal* office a few days ago and picked up a medical exchange, that happened to lie on the table, opened at an article headed "Night-Terrors in Children." He looked at it a moment, and then remarked with a sad-eyed expression of voice: "D—n *that!* It's the child 'terror' in the night that's getting away with me!" and gaped like he was trying to swallow his ears.—*St. Louis Medical Journal.*

MEDICAL HUMOR.

Collated from various sources by T. C. M.

A Newark detective spotted a man who was acting mysteriously. The detective has discovered something since—that the man had the measles, and he is now spotted himself.—*Medical Record.*

* * *

Dividing the Responsibility.—Doctor: "Yes, you have a tremendous fever. Burning thirst, I suppose?"

Patient: "Yes, terrific."

Doctor: "Ah, I'll send you round something to relieve that."

Patient: "Never mind about the thirst, Doctor. You look after the fever; I'll attend to the thirst myself."—*London Pick-Me-Up.*

* * *

A PHYSIOLOGICAL CHARADE.

Pronounced as one letter, and written with three.
Two letters there are, and two only in me;
I am double, am single, am black, blue, and grey,
I am read from both ends, and the same either way;
I am restless and wandering, steady and fixed,
And you know not one hour what I may be next;
I melt and I kindle, beseech and defy,
I am watery and moist, I am fiery and dry;
I am scornful and scowling, compassionate, meek.
I am light, I am dark, I am strong, I am weak.
I am sluggish and dead, I am lively and bright,
I am sharp, I am flat, I am left, I am right;
I am piercing and clear, I am heavy and dull,
Expressive and languid, contracted and full;
I am careless and vacant, I search and I pry,
And judge, and decide, and examine, and try;
I'm a globe, and a mirror, a window, a door,
An index, an organ, and fifty things more.
I belong to all animals under the sun,
And to those who were long understood to have none.
By some I am said to exist in the mind,
And am found in potatoes, and needles, and wind.
Three jackets I own, of glass, water, and horn;
And I wore them all three on the day I was born;
I am covered quite snug, have a lid and a fringe,
Yet I move every way on invisible hinge.
A pupil I have, a most whimsical wight,
Who is little by day, and grows big in the night;
Whom I cherish with care as part of myself,
For in truth I depend on this delicate elf
Who collects all my food, and with wonderful knack
Throws it into a net which I keep at my back;
And, though heels over head it arrives, in a trice
It is sent up to table all proper and nice.
I am spoken of sometimes as if I were glass,

But then it is false, and the trick will not pass.
A blow makes me run, though I have not a limb;
Though I neither have fins nor bladder, I swim.
Like many more couples, my partner and I,
At times will look cross at each other, and shy;
Yet still, though we differ in what we're about,
One will do all the work when the other is out.
I am least apt to cry, as they always remark,
When trimmed with good lashes, or kept in the dark.
Should I fret and be heated, they put me to bed,
And leave me to cool upon water and bread.
But if hardened I grow, they make use of the knife,
Lest an obstinate humor endanger my life.
Or you may, though the treatment appears to be rough,
Run a spit through my side and with safety enough.
Like the boys who are fond of the fruit and their play,
I am seen with my ball and apple all day.
My belt is a rainbow, I reel and I dance;
I am said to retire, though I never advance.
I am read by physicians as one of their books,
And am used by the ladies to fasten their hooks.
My language is plain, though it cannot be heard,
And I speak without ever pronouncing a word.
Some call me a diamond, some say I am jet,
Others talk of my water, or how I am set.
I'm a borough in England, in Scotland a stream,
And an isle of the sea in the Irishman's dream.
The earth without me would no loveliness wear,
And sun, moon, and stars at my wish disappear;
Yet so frail is my tenure, so brittle my joy,
That a speck gives me pain, and a drop can destroy.
—*London Lancet.*

* * *

Scratching as a Remedy.—"Uncle Pomp," said Colonel M. to a former slave, "I hear that some of your darkies down on the lower place are afflicted with the itch."

"Bein' as its you, boss," replied old Pompy, hesitatingly, "I mus' confess dat de Lawd has seen fit too afflick us dat way, for a fac."

"Oh, doing anything for it?"

"Yes, sah; Oh yes, sah."

"What?"

"Why, we—er—am scratching for it."
—*Chicago Druggist.*

* * *

Costly Mistake.—Druggist: "What's the matter with you? You seem excited."

Clerk: "Heavens! I sold Mrs. Smiley strychnine instead of potash."

Druggist: "Well, if you aren't the most careless idiot I ever saw. You seem to have no idea of the value of strychnine."—*New England Medical Journal.*

* * *

The Acutely Ill.

When a patient is acutely ill, the digestive powers share in the general condition, and consequently the food supplied should be of the most easily assimilable character. The predigestion of starchy matters outside the body, as in Mellin's Food, is necessary, and the soluble carbohydrates of which this food consists, soluble because predigested, form the true food of the acutely ill.—J. Milner Fothergill, M.D., Edin.

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The Prescribed Dose produces a feeling of buoyancy, removing depression or melancholy, and hence is of great value in the treatment of MENTAL AND NERVOUS AFFECTIONS.

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COMMUNICATION.

In no other agent, nor in all other agents, perhaps, is there such universal reliance placed by the medical profession in the treatment of Scrofula, Phthisis and other forms of wasting diseases as in Cod Liver Oil, and yet there is no other food or medicine so needlessly placed at a disadvantage in its administration as this remedy is when prescribed plain or in the form of an indifferent Emulsion.

Apart from its dietetic properties pure Norwegian Cod Liver Oil is an Alterative, a Disinfectant, a Germicide, due to its richness in *Phosphorus, Bromine and Iodine*, and a therapeutic agent of varied and extensive application, but its greatest utility depends on the form of its administration.

Almost any digestive organ can be trained to tolerate plain Cod Liver Oil to a great or less extent, but the physiology of digestion, as well as experience, shows the inability of the pancreatic fluid with other solvents of the duodenum to Emulsify Oil to the condition of assimilation to an extent demanded in wasting diseases. Physicians recognized this fact years ago, and chemists have since been endeavoring to solve the problem of a perfect Emulsion (*the digestion of Oil*), but not until within the last few years have we, who were first and always advanced in its manufacture, succeeded in making Scott's Emulsion an absolutely perfect preparation.

In the manufacture of Scott's Emulsion no chemical change whatever takes place in the Oil, but each globule is divided and subdivided into a state of minute subdivision, or until its consistency becomes that of its menstrum, Glycerine and Mucilage, when its permanency is established for all time and under all conditions.

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CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, December 14, 1889. *WHOLE VOLUME LXII.*

Original Articles.

PUERPERAL INSANITY.

A Paper read before the Toledo Medical Association, October 2, 1889,

By J. A. Wright, M.D.,
Toledo, O.

Insanity in any form possesses a claim to the especial interest of the physician. Indicating as it does disease of the most highly organized portion of the economy; expressing itself in disturbance of those functions that mark the consummate achievement of Creative Omnipotence; eloquently appealing, by the overwhelming misery of its presence, to the charity of remedial endeavor, it ever holds the earnest attention and evokes the scrupulous effort of the conscientious practitioner of medicine.

If this be true of insanity in general, it is doubly true when it occurs as a sequel to successful parturition. Coming to the home in which relief and rest have succeeded to dread and anxiety; appearing when suffering has ceased and convalescence is almost surely established; when fear of mishap and doubtful issue is replaced by removal of apprehension and a happy consciousness of trials ended,—it may well be regarded, by the friends of the patient, as the most appalling of disasters; by the accoucheur, as an unfortunate reversal and defeat of almost achieved success.

The designation, puerperal insanity, has been sometimes indiscriminately applied to disorder of mind occurring in the female at any time from the beginning of pregnancy until the end of lactation. This latitude of range, however, not only fails to confine the use of the term to the meaning which it conveys of insanity occurring as the immediate result of childbirth, but is also apt to be a source of confusion in attempting to form an estimate of the influence of pregnancy and lactation in causing mental disorder. Inasmuch as the physiological conditions that obtain in these two states are not only widely different from each other, but, also, different from that which exists immediately after childbirth; so, likewise, the pathological contingencies which may arise in either of them are rarely alike.

For these reasons the term puerperal insanity should be definitely limited to the insanity arising from the immediate effects of labor and occurring during the time in which the parturient female normally recovers from the shock, exhaustion and accidents incidental to its occurrence. This period varies in length in different individuals and under varying conditions, but may be said to extend from the beginning of labor to the termination of the lochial discharge. This discharge, the manifest object of which is to remove the clots, pieces of decidua, or other detritus remaining after the completion of delivery, varies greatly in volume and duration in different subjects; its free maintenance, unaccompanied by evidence of putrid decomposition, for a considerable time after delivery is supposed to be a guarantee of a satisfactory progress to health and strength; still, it has been shown that it may persist for but six or eight days, and again may last for as many weeks, without the approach of convalescence being in any way delayed. Its extreme duration is set down as sixty days, and, therefore, this marks the limit after delivery in which, under the rule just suggested, puerperal insanity may occur.

The statistics of puerperal insanity show that the opulent are much subject to its ravages, the natural inference being that this favored class, through habits of indulgence, inattention to the laws of health, and neglect of salutary precautions for the development and preservation of a high degree of bodily vigor, is so enfeebled in power of resistance to disease, and so especially encourages the growth of neurotic impressionability, that predisposition to insanity and allied neuroses is a common heritage. Among the poorer classes, however, the worry too often attendant upon the advent of another mouth to feed favors to some extent the approach of this disease.

Primiparous females are much more likely to be attacked by it than are those who have previously borne children, the proportion being nearly three to one. Complicated and tedious labors, as well as the birth of dead offspring, seem to offer special inducement to its occurrence. So, also, does excessive mental emotion of any kind; hence the liability of its outbreak in the parturient recently bereaved of husband or near relative. To this influence, also, may be ascribed its common occurrence in the unmarried parturient. In very many cases hereditary predisposition to insanity seems to exist, high authority asserting that in a considerable majority this tendency is strongly marked.

The pathological conditions proper which favor the occurrence of puerperal insanity are not satisfactorily understood. It would appear, from some authorities, that inflammatory states of the uterus, its appendages, or contiguous relations strongly tend to its production; but the truth of this proposition is at best doubtful, and has been denied by many who have carefully investigated the subject. Others assert that puerperal insanity is a true inflammation of the brain, a hypothesis that has not been borne out by autopsical investigation. One distinguished writer on the subject suggests that interruption of the lacteal secretion is a common cause; another attributes its onset to arrest of the lochia; but it is not uncommon for the milk to be secreted freely in the early stage of the disorder, and, similarly, the lochial discharge is rarely completely interrupted. Renal disease has been urged by Dr. Simpson as an all-sufficient explanation of the cause of puerperal insanity, a theory which Frerichs disputes as untenable; while Leishman,—contending that uterine, mammary, or renal disturbance has no etiological power in the direction suggested,—gives much stress to the injurious effect on the supreme nerve centers of the exsanguinated condition that so often follows delivery.

Somewhat extended investigation of this portion of the subject reveals that but little attention is given by any authority to the great etiological potency of predisposition, and, while it is statistically noted that hereditary temperament is well marked in many instances, this fact has not been commented upon or assigned its due prominence in considering the causative conditions of puerperal insanity. *Inherited* predisposition, besides, constitutes but a share of the conditions which render the mind an easy prey to the exciting causes of insanity. In other words, a disposition to insanity, even when not inherited, may be *acquired* by the operation of any one of a variety of causes: Vice and dissipation; hardship and misfortune; engagement in pernicious callings and the enervating effects of overwork; the shattering of nervous strength by accident or disease, are each and all destructive implements which so undermine the fortifications of the mental citadel that any sudden assault may bring them tottering down. It is useless, therefore, to dispute as to the exciting cause of puerperal insanity. Any of those which have been mentioned by different authorities, being sufficient to enkindle the fire of insanity, but only when predisposition, inherited or acquired, has prepared the structure for the application of the torch.

Puerperal insanity commonly presents those symptoms of extreme excitement and active delirium that are characteristic of acute mania. At first headache, an expression of countenance denoting bewilderment and suspicion, and slight irregularity of speech and conduct are all that give signs of the onset of the malady. In a short while, however, evidences of febrile disturbance appear. The features become flushed, the brow contracted, the eyes congested, the veins of the neck distended, the breathing hard and hurried. Added to these there are incessant volubility and constant muscular activity; every aspect of the patient denoting the greatest agitation and unrest, and aptly portraying the turmoil existing within. Insomnolence is, from the first, a symptom of marked prominence, and, in connection with the ceaseless muscular exertion, is a source of great exhaustion. The skin is sometimes hot and dry, often cool and clammy; the tongue usually covered with a whitish fur; the pulse full, and ranging from 90 to 120; the action of the bowels commonly sluggish; the urine lessened in quantity and high colored; lacteal secretion and lochial discharge diminished but rarely arrested; the temperature, seldom very high, commonly ranging about 100°; exceptionally it reaches 103° or 104°, and this, if maintained for a short while, is indicative of a speedily fatal result.

The delusions of the patient are obviously to the effect that great injury or injustice is being inflicted upon her by dearest friends. Consequently she is profuse in language, showing deep detestation of her husband and nearest relatives. Fury of speech and action are intensified by the facial expression; vindictive hate, being rarely more eloquently represented than in the distorted features of the puerperal maniac. This manifestation of feeling may be directed towards the recently delivered infant, but, more commonly, the mother appears to be simply indifferent to the presence of the child, and neither its cries nor the solicitations of bystanders are successful in arousing her interest in it.

A prominence has been given to a peculiarity which impels the subject of puerperal insanity to employ grossly immoral and obscene language. This feature, while not uncommon, is by no means invariably present. When it does exist the utterances of women of refinement and good station, whom one would suppose to be utterly unacquainted with the terms of vice, are often such as to afford valid argument of the innate depravity of the human heart.

Another common characteristic is a determined disposition to commit suicide, which, despite the great confusion of ideas that exists, is concealed with consummate craft. Dimly conscious of the care necessary to carry her designs into effect, the patient will cunningly wait until a suitable opportunity presents itself, and the successful accomplishment of her purpose is perhaps the first intimation received of the existence of such a tendency.

As the malady proceeds the violence of its symptoms measurably abates; incoherence and frequent muttering, succeeding to the voluble denunciations and foul language of the earlier stage; irregular and semi-spasmodic movements to the incessant muscular activity. In over three-fourths of all cases occurring, there is a gradual retrocession of unfavorable indications. The pulse resumes its normal character and frequency; the countenance its wonted expression; the lacteal secretion its proper volume. Deep sleep comes like a balm to irritated nerves and exhausted strength, and, when the patient awakes, convalescence is begun. Health of intellect and natural emotion gradually reappear, and the progress to complete recovery usually pursues a steady pace. In unfavorable cases the obstinate sleeplessness continues; the tongue becomes heavily coated; the appetite is utterly lost; the urine almost completely suppressed, very high-colored and often albuminous; the alvine evacuations offensive and usually scanty; while, notwithstanding the exhaustion following constant exertion, which naturally moderates the violence of earlier signs, there are still great unquietness and agitation. Food is persistently refused, and the nutriment essential to life must be forcibly administered. Later on comes typhomania. Sordes gather on the teeth; the breath is very offensive; the mutterings are indistinct; a state of quiet hebetude, known as *coma vigil* ensues, and with the manifestations common to a fatal typhoid condition, death closes the scene.

To the abatement of active symptoms, which usually assures speedy recovery, there sometimes succeeds a modified mental derangement that may endure for a considerable time, or even remain permanent. Chronic and incurable insanity results in about six per cent. of all cases occurring.

A small proportion of cases, far from being characterized by signs of mental excitement, present those of profound depression. In these instances there are to be seen the train of symptoms common to melancholia. The delusions of the patient are of the gloomiest nature, and she is oppressed with the direst forebodings. A conviction of having committed the unpardonable sin, or some heinous offense against law or morality, is by no means infrequently present. Weeping and moaning are frequent manifestations, but usually, after the disease is fully established, there is determined and gloomy silence, the countenance alone, by the utter hopelessness expressed in it, giving evidence of the unhappy state of mind existing. The pulse is slower than ordinary; the respiration of a sighing character; the tongue heavily coated; the bowels obstinately constipated; anorexia is complete. The tendency to suicide is even greater than in mania. This form of the malady is very propitious, and, under proper treatment, nearly always ends speedily in complete recovery. Its occurrence, as has been noted, is exceptional, the symptoms of maniacal excitement being so common to insanity occurring after delivery that the term "puerperal mania" is very commonly applied to it.

Besides puerperal mania and melancholia, anomalous forms of insanity, resulting from childbirth, are occasionally to be observed. Such a one was the following: The patient, a delicate woman of 28, temperament nervo-sanguine, was delivered of her second child without the appearance of anything uncommon to a natural labor. About twenty-four hours thereafter, I was hurriedly summoned to her bedside. I found her in a condition of extreme restlessness, and, on questioning her as to the cause of her agitation, received a trembling reply to the effect that some serious diaster to her husband was impending. Her countenance showed an expression of wildness and dread, and was much flushed. The surface of body felt cool and somewhat clammy, but the thermometer showed a temperature of 101°. Pulse, 108. A moderate chill had occurred eight or nine hours after parturition, and shortly after this the signs of disturbance just noted appeared. The lochia was discharging in normal volume; but the milk had not yet been secreted. On visiting the patient the following day, I found her wildly denouncing her husband and her mother, cursing and abusing them in not the choicest of language. To her child she was indifferent, although, when pressed to do so, she allowed it to be held to her breast. There had been no sleep secured since my previous visit, despite repeated administration of chloral hydrate; nourishment had been persistently refused, and, in fine, the case presented indications of typical puerperal mania. In less than a day these manifestations gave place to those common to hysteria; the patient at times weeping noisily for hours, and, again, laughing immoderately and shrieking at the top of her voice. To this hysterical state succeeded a condition ot profound despondency, lasting over a week, during which hardly a word could be elicited from the patient, but from which she gradually emerged to restored health. During the entire progress of the case there was marked disturbance of digestion, great insomnia, and, until nearly the end, complete anorexia. The pulse maintained a moderate increase of rapidity and fulness, and the temperature ranged about 100°.

Another case that came under my observation began in pronounced mania and merged into mild melancholia, with delusions of a semi-religious character. Four weeks after delivery this patient was committed to the Northwestern Hospital for the Insane, whence in a little over three months she was discharged recovered.

Still another example of this class, in my experience, began in melancholia and ran into a quiet and happy sort of mania, in which the patient was seemingly so well contented to remain that many months elapsed before she was restored to health and friends.

These instances simply illustrate the occasional exceptions to the customary forms under which puerperal insanity is wont to appear, and by no means indicates either a divergence from the common pathology of the disease (whatever that may be), or suggests new ideas as to its management.

The prognosis of puerperal insanity, as has been intimated, is usually favorable. Statistical data show that 76 per cent. of all cases occurring are restored to health. A percentage of eighteen terminate fatally, either during the progress of the malady while yet acute, or from some intercurrent affection, after the original disorder has ceased to be immediately dangerous to life. A fate worse than death, in irrevocable loss of mental function, is reserved for the remaining 6 per cent. It will be well, however, in calculating the probability of recovery in any given case, not to rely implicitly upon the logic of chances shown by these figures. Of far greater moment, in arriving at an opinion of this kind, will be an accurate estimation, firstly, of the intensity of innate predisposition, hereditary or acquired; secondly, of the severity of the exciting cause, which, as has been seen, may vary from the slightest functional disturbance to organic disease of the gravest kind; lastly, of the significance of indications presented by the disease itself; if these show but slight disorder of vital function the prospect will be correspondingly promising; if, on the other hand, the pulse be continuously rapid, and the temperature maintained long above 102° F., the issue will be almost certainly fatal.

Of the first importance in the line of this consideration is the question of treatment; but this, unlike other sections of our subject, is so exhaustively dealt with by the average text-book on puerperal disease, that but cursory attention can be directed to it here.

The elevated temperature and arterial excitement call for the administration of sedatives and antipyretics, and these are well supplied in the salicylates, quinia, aconite, veratrum, etc. Venesection, which, in earlier times, was extensively resorted to, is now seldom employed; indeed, the loss of blood that the patient has so recently experienced, to say nothing of the reasonable theory that the disease is one of exsanguination, would seem to point out the necessity of a radically different method of management. Notwithstanding this, some authorities, undeterred by the fatal consequences which has followed moderate blood-letting in this disease, advocate the application of leeches to the temples in its early stages. The weight of sound opinion, however, strongly deprecates the abstraction of blood in any case in which acute cerebritis is not threatened.

The torpidity of the bowels and anorexia are symptoms that call for prompt attention. For the first the exhibition of cathartics is indicated, and aloes, colocynth, calomel and salines are among the most useful agents that can be selected. The second is more difficult of removal, and can scarcely be put an end to during the active course of the disease. Some improvement in appetite has occasionally followed the action of an emetic, but the increased exhaustion, which succeeds to nausea and vomiting, is a condition that almost forbids the suggestion of so dangerous a remedy. If, however, the strength of the patient warrants it, it may be cautiously tried, although none of the depressing emetics should ever be used. When the violence of the disease abates, the use of carbonated waters, the bitter tonics, and champagne may be prescribed with advantage; the latter, in a dose of half a wineglassful, repeated at intervals of two or three hours, is a peculiarly grateful and refreshing stomachic in all stages of the disease.

The necessity for the exhibition of nervous sedatives is sufficiently indicated in the constant muscular agitation, great nervous excitability and insomnolence present. Opium is effective in modifying these unpleasant symptoms, but its well-known tendency to impair digestion and retard peristalis almost precludes its use. Sometimes, however, the severity of the manifestations is such that customary remedies fail to act desirably, and fatal exhaustion appears imminent. In these contingencies opiates act beneficially where other medicines are useless. Also, when the disease assumes the form of melancholia, opium is especially serviceable. In my experience, a mixture, composed of equal parts of tincture of opium and sulphuric ether, administered in doses of one drachm, and repeated every three hours till sleep is induced, will not only quickly put an end to the vigilant wakefulness, but will promote a speedy restoration to health. Opium to be effective must be given in large doses; small ones are worse than useless. Hyoscyamus has been recommended as an efficient hypnotic in puerperal mania. Its action is devoid of some of the unpleasant effects of opium, and it does not interfere with intestinal activity, but, on the whole, it is decidedly unreliable.

Of the class of remedies we are now considering, chloral hydrate is the most useful. It may safely be given in large and frequently repeated doses, with little of danger to apprehend, and commonly with the happiest results. It may be advantageously combined with potassium bromide, though the latter agent in itself is not highly commended in this malady.

The hot bath to promote diaphoresis, and as a derivative is a remedy that almost suggests itself. So, also, does the application of cold water or ice to the head and neck. Both of these are valuable adjuvants in reducing fever and quieting excitement.

The possibility of preventing puerperal insanity is naturally suggested by a consideration of its alleged immediate causes. The capable accoucheur, therefore, in weighing the possible mishaps of parturition, will not fail to estimate the danger of this disaster and guard against its occurrence. To this end nothing more can be done than to promote the highest possible health of physical function; the most complete tranquility of mind, and through an intelligent application of measures, mechanical and medicinal, the consummation of delivery with the least possible degree of shock and the slightest outlay of energy. Management after delivery will best conserve the interests of the patient by being based upon the systematic, well-established and fully known routine for the prevention of puerperal disease in general.

The Treatment of Abscess of the Liver by Direct Incision.—Professor J. Chauvel (*Archives Générales de Médecine*, August, 1889) reports four cases of abscess of the liver which were treated by the direct incision, with two recoveries, and presents the following conclusions:

1. The immediate opening of abscesses of the liver with the bistoury is free from the dangers of peritonitis if practiced under antiseptic precautions.

2. The opening should be large and so situated as to lead directly into the purulent centre. On account of the elevation of the section of the liver after the escape of the fluid, the incision should be made at as high a point as possible. If it contracts, as well as the parietal wound, on account of the rapid coming together of the ribs, the resection of a portion of one of these may be necessary.

3. The wide opening of abscesses of the liver should be practiced early. Repeated exploratory punctures are therefore necessary as soon as the presence of pus can be detected.

4. It is almost always impossible to determine the existence of other abscesses at the side of the principle collection, with sufficient certainty to reject operative interference. Under these circumstances, the opening of the large abscess causes the disappearance of one of the sources of the fever, and favors the evacuation of the secondary foci into the large emptied cavity. If it does not arrest the progress of the disease, at any rate it does not have any unfavorable influence on its course.

5. Abscesses of the left lobe of the liver seem to be most dangerous and severe, both on account of the possibility of a pericarditis by extension and on account of their frequent association with purulent collections in the right lobe.—*International Journal of Surgery*.

REPORT OF A CASE ILLUSTRATING MALARIAL NEUROSES.

By Otto Juettner, A.M., M.D.,
Cincinnati.

No disease presents in different individuals such a variety of clinical pictures as malaria. Only in a limited number of cases does the objective condition of the patient conform to a well-established norm. In these comparatively few cases it is the element of periodicity which is pre-eminently a characteristic mark of the disease, *i.e.*, in the acute outbreaks of the malarial poison in the form of remittent or intermittent fevers. The vast number of cases of malarial poisoning, however, present almost as many different conditions. It is this fact which gives to malaria its inimical character and at the same time leads the unwary to erroneous conclusions regarding the diagnosis and hence the treatment of occult cases of the disease. Malaria frequently gives to the medical attendant an array of symptoms, in connection with which the diagnosis of malaria would appear as totally out of the question. In this respect the symptoms of a neurotic character often present especial difficulties. "Reflex neuroses," however much or little this term means, of malarial origin not infrequently delude the diagnostic power of even an acute observer. Unsatisfactory treatment is in these cases of hidden malaria always the result of a relatively satisfactory and absolutely conscientious diagnosis. The following case was to me a very instructive lesson in connection with the subject of malarial mimosis.

Beginning of September, I was called to see Frank B., æt. 11. The patient had always been in delicate health, was badly nourished and in a despondent state of mind. Three weeks previous to my visit his family had changed their residence, having moved in a typically malarial vicinity. From that time on the patient's condition became worse. His despondency and indisposition to exert himself grew into an actual antipathy to the presence of any one. He complained of a constant pain in the epigastrium and of a sense of soreness in the muscles of his extremities and his back. In addition to this, there were anorexia and constipation of several days' standing. Two days after my first visit the patient apparently was well, all the symptoms named having disappeared. The treatment therapeutically had consisted of quinine and calomel. I prescribed some tr. cinch. comp. and discharged the patient. Four weeks after this I was suddenly summoned to see the boy. He was in a condition of semi-stupor, bathed in cold sweat. His mother stated that he had been tolerably well since his last spell of sickness. On the day named he complained of violent pain in his stomach and had several rigors. He was wildly delirious for ten or fifteen minutes before my arrival. Pulse was 160, temperature in the rectum a degree and a half below normal. Examination showed involuntary discharge of urine and feces, abdomen very much distended, liver and spleen enlarged. Occasionally there was a general twitching of the muscles of the extremities, the abdomen, but principally the back. For some moments there was general muscular rigidity, then again relaxation. Pupils were somewhat enlarged, but responded to light. Patient rallied after prolonged attempts at stimulation. He complained of pain in the epigastrium and in both hypogastric regions, of rectal tenesmus and a feeling of tension in the back. The mother stated that she had given him repeated large doses of ol. ricini, thereby augmenting his pain. Patient, while answering questions, suddenly cried out and became rigid. His eyes were fixed, pupils reduced to pin-point size. After repeated attacks of this kind the patient became quiet, only complaining of pain in the stomach, which was greatly relieved by the application of heat. Being at a loss to give to myself a more satisfactory explanation of the patient's condition, and having treated the boy for a malarial attack before, I concluded that I had to deal with a case of malaria of a malignant type, and asked Dr. F. F. Hellmann, to see the case with me. His view of the case did not differ from mine. For about twelve hours there was very little change in the condition of the boy, attacks as described alternating with moments of comparative comfort. The attacks gradually became more frequent and more severe, assuming the form of tetanic spasm. The patient in these attacks presented a typical episthotonos. After five or ten minutes of ease a half suppressed cry of the patient announced the onset of an attack. Every muscle of the body became rigid. The patient buried his head deeply into the pillows, his body began to rise with tremendous effort, and for some moments retained its arch-like form. After ten to thirty seconds the muscles of the back became relaxed and the patient sank down in an exhausted condition. It is worthy of notice that at times the muscular contractions were not as severe as described, and the boy was able to prevent the occurrence of the spasms or interrupt them at will. In the face of our diagnosis the development of tetanus was certainly, to say the least, a remarkable phenomenon. In order to arrive at some explanation of it, I interrogated the mother in reference to the possibility of an injury having befallen the boy during the last few months. She stated that the boy had fallen some five or six weeks previously while descending a stairway and had complained for some time after this of localized pain in his back. No attention was paid to the occurrence at the time. Examination elicited pain upon pressure over first lumbar vertebra. Tetanic spasms were finally checked by the administration of morph. sulph., gr. ¼, every four or five hours. As long as the boy was kept under the influence of the opiate, his condition was one of absolute quiet. All the nervous phenomena subsided. Every afternoon, however, there was a malarial elevation of temperature. I say *malarial* because a slight chill preceded it and copious diaphoresis followed it. These attacks recurred in spite of the quinine given to prevent them. This was an additional strange phase in the already obscure case. I more than once doubted the correctness of my diagnosis, but adhered to it because I had no other to give. On the third day an enema was ordered and the fecal matter submitted to inspection. I noticed a number of small hard masses in the stool. After examining these more closely, I came to the recognition of the fact that I had before me masses of quin. sulph. The gelatine capsules alone had been absorbed. The capsules contained each five grains of the drug, mixed with g. acaciæ as an excipient. The admixture of the excipient—undertaken by the pharmacist upon his own responsibility, as the prescription simply called for quin. sulph. divided into a certain number of five-grain capsules — caused these hard masses to pass through the alimentary canal like foreign bodies. The *powdered* quin. sulph. was at once ordered in capsules. The effect of their administration demonstrated clearly the malarial character of these tetanic spasms. No opiate was given, the quin. sulph. controlling the tetanic spasms most effectually, as also the quotidian attacks. The patient's general condition promptly began to improve. On the fifth day the specific treatment was discontinued and the patient allowed a nutritive liberal diet, the therapeusis being limited to a tonic. On the sixth day I was called suddenly to see the boy, who had lost his sight and hearing, at the same time having no control of his left arm. Quin. sulph. restored sight, hearing and the use of the left arm in less than six hours. The specific treatment was again suspended until the eighth day, when there occurred paralysis of both lower extremities and motor paralysis of both eyes. Prompt relief again followed the administration of quinine. I neglected to state that a paralytic condition of the roof of the mouth, occasioning regurgitation of food through the nose, was noticed in connection with the loss of sight and hearing, mentioned above. Convalescence, slow but uninterrupted, began on the ninth day.

For several reasons this case is one of more than ordinary interest. It illustrates strikingly what an important part individuality or idiosyncrasy plays in malaria and, I may add, in other diseases as well. For it is that peculiar something in the animal body, constituting susceptibility or idiosyncrasy, which makes malaria in different persons a different disease, though, etiologically considered, it is the same in all cases. The clinical picture of the above detailed case certainly presented several significant features which made the diagnosis of malaria questionable before the therapeutic proof established its correctness. There was the history of an injury to account for the occurrence of opisthotonos. Again, in the face of the paralyses mentioned, it was quite natural that the possibility of an underlying diphtheria should have come in for a share of consideration. There were a number of cases of diphtheria in the immediate vicinity of the patient, so that it was certainly not out of place to consider the possibility of diphtheria sufficiently to exclude it. Furthermore, all will agree that the most remarkable features of the neuroses described were their variety, the rapidity of their development and the promptness with which each one of the neurotic symptoms disappeared to make room for another phenomenon, wholly unexpected and totally different. Taking into consideration the temperament and home surroundings of the patient, hysteria as an element in his case did certainly not appear as entirely out of the range of possibility. This does not imply that hysteria was the cause, whole and entire, of the nervous disturbances, but that it entered, as my friend Dr. Hellmann suggested, in no inconsiderable degree into their development, explaining their extravagant character.

The lesson conveyed by the case described is a most positive one. The diagnosis of malaria, so far as treatment is concerned, is a *conditio, sine qua non.* If in other diseases the symptoms explain the diagnosis, in malaria the diagnosis apologizes for the symptoms.

ELECTRICAL CATAPHORESIS.—Ad. Barth (*Centralblatt f. Chirurgie*, No. 22, 1889), calls attention to the uselessness of the application of cocaine by the usual methods of pencilling in solution, except in situations where the epidermis has been removed, or upon mucous membranes. He recommends Wagner's method of electrical cataphoresis in the production of local anæsthesia, this consisting of placing a pad of cotten, moistened with a ten per cent. solution of cocaine, over the part to be operated upon and applying to this the positive pole of the galvanic battery. In from fifteen to twenty minutes, with the negative pole upon the back of the neck, anæsthesia sufficient for the performance of small surgical procedures, such as Wilde's incision, or incision of the membrana tympani, is obtained. Four to ten cells are required.—*Brooklyn Med. Journal.*

ACTING upon suggestions in a communication signed by Drs. S. Weir Mitchell, D. Hayes Agnew, William Pepper, J. W. DaCosta, W. W. Keen, H. C. Wood, and William Hunt, the Board of Health of Philadelphia, on November 29, adopted a resolution in which it "strongly advises the boiling of all drinking water and milk at least twenty minutes, as the simplest and best means of purification."

BELMONT COUNTY MEDICAL SOCIETY.

Tuesday, December 3, 1889.

The President, J. P. West, M.D., in the Chair.

A. J. Heinlien, M.D., Secretary.

The regular meeting of the Society was held in Bridgeport, with the following members present: Drs. Kurtz, West, McClellan, and Long, of Bellaire; Dr. Colville, of Harrisville; Dr. Walker, of St. Clairsville; Dr. Webster, of Flushing; and Dr. Heinlien, of Bridgeport.

The following papers were read and discussed by those present:

"Intestinal Obstruction." Dr. J. S. McClellan.

"Report of a Case of Extra-Uterine Pregnancy, with Post-Mortem." Dr. C. E. Kurtz.

Dr. J. P. West presented a case of poliomyelitis anterior acuta, and read a paper on this disease.

The following officers were then elected for the ensuing year:

President—J. A. Hobson, M.D.
Vice-President—J. S. McClellan, M.D.
Secretary—A. J. Heinlien, M.D.
Treasurer—G. H. Colville, M.D.

It has been the custom of the Society to hold a banquet each year on Washington's Birthday. This has been postponed, and the members have under consideration the chartering of a car to attend the next meeting of the State Society in a body.

SOCIETY NOTICES.

Academy of Medicine.—

Monday evening, December 16, Dr. B. M. Ricketts will read a paper on "Soap and Water," with presentation of specimens of soap.

Cincinnati Medical Society.—

Tuesday evening, December 17, Dr. Theo. Bange will read a paper entitled "Milk Inspection of Cincinnati, with Suggestions for Dairy Reform." Discussion opened by Prof. Karl Langenbeck, Dr. Julius Eichberg, and Dr. Byron Stanton.

Moerlein.—During the month of December Messrs. Moerlein will send a sample bottle of their best beer to any reader of the Lancet-Clinic that will send them his address.

NOTES.

The College of Physicians and Surgeons of New York will hereafter emulate Harvard, and charge $200 as its annual tuition fee.

Dr. Hans Virchow, *Privatdocent* in the University of Berlin, and Prosector in the Anatomical Institute, has been raised to the rank of Professor Extraordinarius. Dr. Hans Virchow is a son of the celebrated pathologist.

By a recent order of the Russian Medical Department, antifebrin and phenacetin are placed in the category of drugs which chemists are forbidden to sell unless prescribed by a medical man. Antipyrin and cocaine had already been placed in the same list.

The officers and friends of the University of Pennsylvania have organized a stock company under the name of the University Press, for the purpose of controlling under one efficient direction the present periodical publications of the University, and of establishing such new magazines as the needs of the institution may suggest.

Department of Hygiene at the University of Pennsylvania.—A very important announcement was made November 11, in regard to the University of Pennsylvania, namely, that Dr. John S. Billings has, with the approval of the Secretary of War and of the Surgeon General, accepted the position of Medical Director of the University Hospital, to which he was recently elected, and that the duties of this new position will be so arranged as not to interfere with his duties as Medical Officer of the army at the Surgeon General's office.

It is also announced that the University of Pennsylvania is soon to have a new laboratory of hygiene to cost about $200,000; and that $100,000 have been already collected for this purpose. The Department of Hygiene has been under the supervision of Dr. Samuel G. Dixon, since the death of Dr. N. A. Randolph, who was recently one of the editors of the *Medical and Surgical Reporter*.

It was rumored at first that Dr. Billings was to supersede Dr. Dixon; but the Provost of the University promptly denied this rumor and stated that Dr. Dixon was still Professor of Hygiene in the University and in charge of the Laboratory of Hygiene, which has been equipped through his exertions and liberality.

It does not yet appear just what Dr. Billings will do at the University, but the probability is that he will be at the head of the Department of Hygiene. For this he is abundantly fitted, as he is recognized as an authority upon the subjects of hygiene and hospital construction and administration. The elaboration of the plans for the construction of the Johns Hopkins Hospital, and his coming will be a valuable accession to the teaching force of the University of Pennsylvania.—*Medical and Surgical Reporter.*

A DEATH has been reported following the use of two fifteen-grain doses of sulphonal, the doses being given an hour and a quarter apart. The fatal result occurred forty hours after the first dose. The patient was a woman with melancholia, aged twenty-eight. The mode of death was apnœa.—*Med. Record.*

THE LORD MAYOR'S SHOW, LONDON, 1889.—At the Royal Courts of Justice, as soon as the function of "swearing-in" was over, the new Lord Mayor and his predecessor, accompanied by their sheriffs and swordbearers, left the court and made as if they would rejoin the procession in the Strand. In the crypt, however, there stands a refreshment bar. Mayors are but mortal, and the fatigues which these men had undergone had proved to be as much as they could bear. So, regardless of the procession that stood in the street outside, regardless also of the officials who awaited them in the Central Hall, these great ones from the City stopped to regale themselves with sandwiches and brandy and Apollinaris. Then they rejoined their companions and proceeded in State.—*Pall Mall Gazette*, London, November 11, 1889.

PHYSICIANS desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A fee of $5.00 will be charged for such examinations. LEONARD FREEMAN, M.D.,
J. C. OLIVER, M.D.,
OTIS L. CAMERON, M.D.,
OLIVER P. HOLT, M.D.,
Curators and Microscopists.

Are prepared to make examinations of river water, milk, etc., for the typhoid bacilli.

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

TERMS, $3.50 PER ANNUM IN ADVANCE.

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DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, December 14, 1889.

The Week.

EPIDEMIC CATARRH.

Despatches from Europe indicate the rapid spread of epidemic catarrh over the entire continent, and the extension of the disease to North America is only a matter of time. Influenza of the type usually observed in periods of pandemics is far from being a trivial affection, a heavy mortality among the young and aged having been noted in many outbreaks. Like almost all known pandemics, this disease travels from east to west, so that its first appearance in the United States will be noted along the Atlantic seaboard. In many instances dogs, cats, and horses have been attacked at the same time as man; this was a most marked feature in England in 1775.

The history of epidemic catarrh dates back only to the thirteenth century, although it is true that Hippocrates, in the third section of his *Aphorisms*, describes the affection in its simpler form. In the *Chronique des Freres Mineurs* may be found a narration of the outbreak of August, 1239; it prevailed in France again in 1311; it was epidemic in Italy in 1323. In 1482 the disease was manifest throughout Europe, as it was again in 1557; in these pandemics all classes of people, the young and the old, rich and poor, were alike victims to the malady. In most of the olden outbreaks the affection commenced with a chill, pain in the head, and a tendency to stupor, followed by a dry cough and pain in the chest, with difficulty in breathing; the patients, when convalescing, felt an almost complete restoration about the fourteenth day. In 1675 the whole of Europe was attacked by influenza; the type of the disease during this outbreak was violent, the cough being so severe as to produce bloody expectoration, the cases verging on the pneumonic order. From 1729 to 1735 epidemic catarrh traversed the globe, commencing in Germany, passing to England, France, Switzerland, Italy, Spain, Mexico, Peru, and throughout North America, especially in New England. In 1775 one of the most remarkable epidemics of influenza ever noted occurred in Europe and America. Warren, of Boston, and Benjamin Rush, of Philadelphia, were the American epidemiologists of that period, the former, who was killed at Bunker Hill, being the historian of the earlier, the latter of the outbreak observed in 1790.

In 1800, and again in 1830, epidemics of catarrh spread from Russia all over continental Europe, and from thence to Great Britain and North America, prevailing, too, as far as Java and Singapore, and in the United States as far south as Burke county, Georgia. Epidemics of influenza have been noted since that time in 1847, 1860, and 1870, while the present outbreak, which will probably be remembered in this country as that of 1890, bids fair to outrival all previous manifestations of the disease, if the rapid spread and severe type observed at present in Europe is to be taken as an index. The average duration of an epidemic outbreak of catarrh, when localized, is sixty days. Those persons exposed to outdoor atmospheric influences are most liable to attacks, while the malady is most fatal to the weak lunged in adult life of the community. Strange as it may appear, the very young and the very old have a seeming exemption from the affection, children under the age of eight being rarely attacked, according to Warren, while among the aged the attacks are rare; those afflicted usually die. In 1847 250,000 people in London alone were attacked by influenza, and the mortality was frightful, according to Anstie; the average mortality of childhood being raised 83 per cent., that of adults to 104 per cent., while that of the aged was raised to the startling figure of 257 per cent.

Influenza is the most rapid in its spread of any known so-called zymotic disease, and its propagation is directly dependent on atmospheric influences.

Epidemic catarrh, which is probably a better name for the malady than influenza, usually commences by a chill, sneezing, dryness of the nares, with fever and inflammation extending to the frontal sinus; pains in the limbs, accompanied by a general feeling of lassitude, and headaches, followed by an ordinary attack of bronchitis. The treatment will vary, following the nature and gravity of the symptoms, and the rational empiricism of the period will offer us a multitude of new specifics, as is usual in epidemics of sixty days' duration. T. C. M.

We are pleased to notice that Dr. Ollie Norton, U. S. N., has just passed his final examination at Chelsea, Massachusetts, Marine Hospital, and now passes to the grade of surgeon with the rank of captain in the United States Navy. Surgeon Norton is a born and bred Cincinnatian. We extend our congratulations.

Reduced Rates for our publications on advg. page 12.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending Dec. 7, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	...	..	1	..	...	..	...
2nd	...	..	...	..	...	..	...	..	...	..	...
3rd	...	..	1	..	...	..	4	1	...	..	1
4th	...	..	1	..	...	..	2	1	...	1	...
5th	...	..	...	..	..	1	...	..	...	..	...
6th	...	..	...	..	..	..	...	..	...	..	...
7th	...	..	...	..	...	..	1	..	...	..	..
8th	2	1	1	..	...	..	6	1	...	..	...
9th	1	..	1	..	...	..	...	..	...	..	...
10th	4	..	3	..	...	..	3	..	...	..	...
11th	1	1	...	..	...	..	3	1	...	..	...
12th	...	..	2	..	...	..	1	..	...	..	...
13th	...	..	...	..	...	..	1	..	...	..	...
14th	...	..	...	..	...	..	1	..	...	..	...
15th	...	..	1	..		..	1	..	...	..	...
16th	...	..	...	..	...	..	...	..	...	..	...
17th	1	..	..	..	...	..	...	..	...	..	...
18th	1	..	...	..	...	..	...	..	...	..	...
19th	2	..	...	..	...	..	...	..	...	..	1
20th	1	..	...	..	...	..	2	1	...	..	...
21st	...	..	...	..	...	..	...	..	..	..	2
22nd	...	..	1	..	...	..	...	..	...	..	...
23rd	...	..	...	..	...	..	1	..	...	..	1
24th	...	..	...	..	...	..	...	..	...	..	...
25th	...	..	...	..	...	..	1	1	...	..	..
26th	4	..	...	..	...	..	.	..	...	..	...
27th	1	..	...	..	...	..	...	..	...	..	...
28th	1	..	2	.	...	..	...	.	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	2	..	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	..	...	..	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	..	...
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	19	2	13	..	...	1	30	6	...	1	5
Last week	16	..	4	..	8	2	26	6	...	4	3

The following is the mortality repor for the week ending December 7, 1889.

Croup	5
Cerebro-spinal Meningitis	1
Diphtheria	6
Entero-Colitis	1
Measles	2
Typhoid Fever	1
Whooping Cough	1
Other Zymotic Diseases	5—22
Phthisis Pulmonalis	14
Other Constitutional Diseases	1—15
Apoplexy	2
Bronchitis	10
Convulsions	2
Heart Disease	7
Liver Disease	1
Peritonitis	1
Pneumonia	5
Other Local Diseases	28—56
Old Age	5
Puerperal Septicæmia	3
Other Developmental Diseases	5—13
Accidental	3
Homicidal	1— 4
Deaths from all Causes	110
Annual death rate per 1000	17.60
Deaths for corresponding week in 1888	108
Deaths for corresponding week in 1887	150

BYRON STANTON, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 27 observers for the week ending December 6, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Tonsillitis	14	30
Diarrhœa	11	15
Bronchitis, acute	10	32
Rheumatism (acute)	8	11
Measles	4	22
Typhoid Fever	4	8
Pneumonia	4	7
Scarlet Fever	4	6
Diphtheria	4	5
Erysipelas	4	4
Intermittent Fever	4	4
Pleurisy	3	5
Remittent Fever	2	4
Consumption (Pul.)	2	2
Whooping Cough	1	2
Dysentery	0	0
Typho-Mal. Fever	0	0
Cholera Morbus	0	0
Puerperal Fever	0	0
Croup, membranous	0	0
Cerebro-Spin. Men.	0	0
Cholera Infantum	0	0

REMARKS.

Reports from 66 observers and health officers:

Diphtheria reported by health officers: Columbus, 10 cases; Toledo, 16 cases, 5 deaths; Dayton, 9 cases, 1 death; Akron, 1 case; Springfield, 8 cases; Lancaster, 11 cases; Youngstown, 2 cases; Fostoria, 3 cases; New Metamoras, 2 cases; Bloomville, 1 case; East Palestine, 3 cases, 2 deaths; Ashley, 1 case; Minerva, 1 case; Utica, 4 cases, 1 death. Reported by observers at Summerfield, Woodville, Plain City, and Moscow.

Scarlet Fever reported by health officers: Toledo, 4 cases; Columbus, 5 cases; Youngstown, 8 cases; Akron, 1 case; Springfield, 1 case; Shelby, 1 case; Millersburg, 4 cases; Urbana, 3 cases; Crestline, 1 case; Findlay, 4 cases; Kent, 1 case; New Straitsville, 8 cases, 1 death; Massillon, 2 cases; Ravenna, 5 cases; Springboro, 2 cases. Reported by observers at Maineville, Canal Dover, Jackson, and Burton.

Typhoid Fever reported by health officers: Toledo, 1 death; Akron, 1 case, 1 death; Springfield, 1 death; Fostoria, 1 case; Ashley, 1 case; Bellaire, 2 cases, 1 death; Garrettsville, 1 case, 1 death; West Salem, 1 case; Conneaut, 1 case;

New Straitsville, 1 case; Crestline, 2 cases; Utica, 1 case.

Bloomingburg and West Salem report Whooping Cough present.

In the following places health officers report no infectious diseases present: West Liberty, Versailles, Dalton, New Richmond, Zanesville, Bainbridge, Linwood, Warren, and Lorain.

C. O. Probst, M.D., Secretary.

FOR SALE, ETC.

FOR SALE.—In western Indiana, with lucrative practice, for sale a good two-story frame dwelling, containing twelve rooms, in good repair. The lot without improvements would bring cash $2,500. Improvements, at lowest estimate worth $2,500. Healthy neighborhood, and one of the best in the city. City contains 12,000 inhabitants, is a railroad centre and is improving, having water, gas, and electric works, etc. Will take $4,000 in easy payments. Cause for selling—wish to retire.

3 Address, S. Care of Lancet-Clinic office.

FOR SALE.—A lucrative established practice for sale, with good two-story frame house and office, stables, etc., all in good order. Possession given immediately upon sale of premises, and good will of practice to go with sale. Terms reasonable. Cause for selling—wish to retire.

Address, Dr. C. T. McKibben, Moscow, O.
Or Lancet-Clinic office. tf

FOR SALE.—A physician's home: two-story frame residence with out-buildings and a physician's office, also 94 acres of land, in grass for past fifteen years. Residence and office have been those of a physician for over thirty-five years, and for past ten years occupied by two physicians. Price, $6,000; one-half down, balance in one and two years. Write for particulars.

2 Mrs. J. H. Aitkin,
Fleming Co. Sherburne, Ky.

FOR SALE.—$1,500 will purchase my property, with practice included, situated in the town of Potsdam, Miami County, Ohio. A fine locality, with the best of roads. Terms reasonable. A bargain for the right man. Must be a "R."

3 Address, S. P. Deahofe, M.D.,
Miami Co. Potsdam, Ohio.

FOR SALE.—In western Ohio, property worth $1,500, with practice worth from $1,800 to $2,500 annually. All for $1,200. In a small railroad town of about 200 inhabitants. Best of gravel roads. All main roads are free pikes. Good reasons for selling. No opposition in practice.

Address, J. K., Care Lancet-Clinic.

FOR SALE.—$3.000 cash practice. A fine location in Colorado. No competition nearer than twelve miles. Resign office of Coroner and Surgeon to 800 miles of railroad. Delightful roads, fine climate. Owner has interests elsewhere and must change.

8 Address, Box 8 Elbert, Colorado.

Obituary.

THOMAS B. HARVEY, M.D.

On the 6th of this month the telegraph brought the news of the sudden death from apoplexy of Dr. Thomas B. Harvey, of Indianapolis. Dr. Thomas B. Harvey dead! Our heart sank within us at the reading; and now we can scarcely realize that Dr. Harvey is no more—we will not say that, for his works will live on and on, though we may see him not again. There is not a doctor in the State of Indiana, and we may almost include the entire profession of Ohio, Illinois, Kentucky, and Missouri, who will not feel the personal loss of Dr. Harvey. Skilled in his profession beyond that of ordinary men, and with all the success his ambition craved, his presence was always a harbinger of joy. Loving and lovable, trusting and to be trusted, was peculiarly charcteristic of Dr. Harvey. Always active in his interest in all societies and professional gatherings, he will be missed at the meetings of the American Medical Association, of the Indiana State Medical Society, at the Mississippi Valley Medical, and the Marion County Society.

It was at a meeting of the Mississippi Valley Society at St. Louis in September of last year, while we were being conveyed in carriages to the fair grounds to enjoy the hospitality of the St. Louis profession, that the driver of the carriage slammed the door on the Doctor's hand, cruelly crushing it. Dr. Mudd dressed his hand, and the Doctor insisted on nothing being said of it and that he be conveyed with the company to the feast, where, although enduring the torture of crushed nerves and lacerated flesh, he responded to one of Love's toasts—"The Profession of Indiana."

We did not see him again until at the meeting of the American Medical Association last June, when he sadly told us that he had never recovered from the injury received at St. Louis; his nervous system was shattered and prostrated. Hero that he was, his face was genial and smiling as ever, and his presence a joy to his friends. During this time he was under treatment and a constant sufferer. On his way home a few days were spent in Cincinnati with his friends, who were greatly attached to him.

Again he attended the meeting of the Mississippi Valley Medical Association at Evansville, where he greeted his friends with the same placid, benevolent face, but beginning to show lines of anguish and pain, of which he never uttered a murmur, but was ever ready in conversation as of yore, and appeared to be jolly with the happiest. Our night ride from Evansville to Indianapolis in his company was the last occasion on which we enjoyed his presence. Murdock, of Pittsburg, was with us, and we had a real feast of soul. Now we are told of his freedom from pain and entrance to that undiscovered country from whence no traveler ever returns.

The loss of Dr. Harvey to his profession, to the State, and to his family is irreparable. We can only say,—His will be done.

THE MICRO-ORGANISMS OF MALIGNANT TUMORS.—Dr. Verneuil (*Bullet. de l'Acad. de Medecine de Paris*) presents the following conclusions as results of his experiments:

1. The tissues of malignant tumors (sarcoma, carcinoma, etc.) may contain at different times various microbes, the number and kinds of which cannot be demonstrated with certainty.

2. The invading microbes may remain latent, but in other cases may give rise to important tissue lesions, causing a rapid growth of the neoplasm, softening, and ulceration.

3. These organisms are not found in all forms of tumors, nor even in all tumors of the same kind, nor in all parts of the same tumor. They are never present in pure fibromata, or commencing cancers or sarcomata, but regularly in malignant neoplasms in the stage of ulceration and softening.

4. Besides inflaming the tissues of the neoplasm, they probably play an important part in the production of the cachexia.

5. During the extirpation of the tumor they may invade and infect the operation wound, and thus lead to a fatal septicæmia.

6. These results are in favor of an early extirpation of malignant tumors, which should be performed under the strictest antiseptic precautions.—*International Journal of Surgery.*

Bibliography.

THROUGH THE IVORY GATE: Studies in Psychology and History.

By WILLIAM W. IRELAND, M.D., Edin. New York: G. P. Putnam's Sons. For sale by Robert Clarke & Co. Price $3.00.

To the student of mental phenomena this volume is entrancing. Written in classic style, the author takes as his subject Emanuel Swedenborg, a man whose writings are co-extensive with those of the English language. Telling of his ancestry, with an interesting account of his life, his labors, a summary of his theology, the new church, his last illness, death, and remarks on the nature of his neurosis, takes up more than one-third of the volume. A few pages are devoted to William Blake and the insanity of King Louis II. of Bavaria, of which we are told a little and wish we knew more. Charles Guiteau is taken up as a noted historic character, of peculiar neurotic temperament, with vicious and criminal proclivities. Louis Riel, the noted character of Manitoba, Gabriel Maligrida, Theodore of Abyssinia, and Thebaw, King of Burmah, are in turn taken up and their psychical conditions discussed in the light of modern science, that makes the work of very great interest.

ABDOMINAL SURGERY.

By J. GREIG SMITH, M.A., F.R.S.E. Third edition. Philadelphia: P. Blakiston, Son & Co. For sale by Robert Clarke & Co. Price $7.50.

The very first thing that strikes us on taking up this portly tome, is that the first edition bears date of October, 1887, the second of October, 1888, and now this, the third, dated October, 1889, each edition being out of print within six months of issue. This is marvellous in the eyes of a publisher, and to the practitioner of medicine is a sure thermometrical indication of a hungering for a knowledge of all that is known on this very important subject. The author of this work has been correspondingly industrious, and in each succeeding issue has improved the work in detail by the incorporation of all the most recent advances made in methods of operating and treatment, including reliable statistics brought as closely as possible up to date. A few new illustrations are introduced, as well as new modifications of former described operations. A modern gynecologist cannot afford to be without this last edition of Prof. J. Greig Smith's work.

THE PRINCIPLES AND PRACTICE OF SURGERY.

By JOHN ASHURST, M.D. Fifth edition. Enlarged and thoroughly revised. With more than six hundred illustrations. Philadelphia: Lea Brothers & Co., 1889. For sale by Robert Clarke & Co. Price $7.00.

This is one of the most popular and useful of the many well-known treatises on general surgery. Not so elaborate as the systems of surgery that have recently been offered the medical profession, it furnishes in a concise manner a clear and comprehensive description of the modes of practice now generally employed in the treatment of surgical affections, with a plain exposition of the principles upon which those modes are practiced. The entire work has been carefully revised, and a number of new illustrations introduced that greatly enhances the value of the book.

INTRODUCTION TO THE TREATMENT OF DISEASE.

By SKENE KEITH, M.D. London: Truslove & Shirley.

This is a timely little monograph on a subject that has the attention of many of the most studious members of the medical profession, and it is plain that every physician should practically know something of this agent, that in its influence is as gentle as the rays of the moon or powerful as the glare of the sun. This little book tells a good deal about it, leaving the reader only half satisfied, wanting to know more.

PHYSICIAN'S VISITING LIST FOR 1890.

P. Blakiston, Son & Co. For sale by Robert Clarke & Co.

This is the pioneer of this useful class of publications, and one of the best.

FRECKLES.—Lactic acid and glycerin, equal parts, are said to remove freckles.

QUINSY.—Gargle with four grains of chloral hydrate to the ounce of glycerine. —*Med. Record.*

LOCAL MEDICAL ORGANIZATIONS.

[*Jour. Amer. Med. Association.*]

With a commonwealth that has within a century developed from thirteen States to forty-two; with a population increased from three to over sixty millions; in the midst of a people keen of perception and intensely practical in their estimates; with whom, in every department of learning, from that of the public school to the University, a high order of culture is possible, and where the varied industries are so well rewarded that ample means are at command, is it not singular that men in all the walks of life are keenly alive to their personal interests, and studiously intent as to the best methods of accomplishing desired results? Thus, our very industries are prolific of invention, and little heed is given to precedents. Every department of education is feeling a like strong impulse to the development of better and better methods of instruction, and the advances that have been made in educational methods within the last few years are simply marvelous. This impulse is at last taking strong hold upon the medical profession. Medical men are more and more dissatisfied, as well they may be, with the present professional status. The demand for better methods of teaching; for men better trained in preliminary studies; and for a much higher standard, to which they shall attain, before entering the medical profession—these are the prominent themes that point the pens of our best writers, and command the considerate judgment of our best thinkers.

The great problem which now confronts us, and which during the next twenty-five years must have its practical solution is this: how so to bring the standard of medicine from its present low state to that high plane, and the masses of medical men to that degree of culture where medical science shall find legitimate expression, and the art of healing render its best services to men, creating positions which men may hold as posts of honor, and up to which quackery and charlatanism may not climb. This is the requirement of the hour and of this age.

Science and art and invention are laying their contributions at the feet of the medical profession with a demand to be utilized in the interest of mankind. The dawn of a new century is upon us. Already the outlines of grand possibilities can be discerned. If at the present hour medical men shall prove themselves unequal to their opportunities, then let there be no murmuring though the honors of our profession continue to trail in the dust, while charlatans run riot in their misrepresentations of medical science. But this shall not be; for the men are already upon the stage who will do valiant work in the saving of our profession from such humiliation.

There needs at this stage to be set forth not only a clear statement of the work to be done, such as shall command the hearty approval of a united profession, but secondly, that the means for successful accomplishment shall be used with utmost discretion. Whatever efforts the profession shall put forth for medical advancement in America, those efforts must be in full accord with the genius of American institutions. It is clearly manifest that legislation, and legislation only, can accomplish the desired result. With us that power of legislation vests with the people, and it is their voice which must first be heard before results can follow. For more than a century we have been accustomed to trust this people, and we can trust them now. Assure them fully as to what their best interests require, and needed legislation will quickly follow. We come then to the significant fact, that our present greatest need is that of medical men, who by ability and culture, and fidelity to their profession, shall be able to rightly educate the masses as to their common good, and so develop a healthful public sentiment. In this great work it is true that every able and highly cultured medical man will be needed as a standard bearer, but it is equally true that the burden of this work must fall upon the rank and file of our profession, as they shall mingle with the massses.

In the accomplishment of results so important men must act with intelligence and in harmony. Hence, the imperative need of efficient local medical organizations in every hamlet, town, city and county of every State in the Union. Each organization has a right to command the best of talent and the best of culture that the profession of that locality can contribute, and the duty of every medical man is only measured by his ability to rightly influence the body politic. Here lies the power that at last shall move the State. The vitality of local societies will determine the power and efficiency of State organizations. The delegations from the local societies will give to these the impetus of personal convictions, and State societies will only be what local societies shall choose to make them. And in this general work of local organization our medical journals can wield their power with great efficiency for good, and serving best the needs of the profession they shall serve themselves as well.

THE CONFORMATION OF THE CHEST AND THE TENDENCY TO CONSUMPTION.—The *Deutsche Medizinal-Zeitung* contains an article on this subject by Dr. Maszkowski. The writer states that it is maintained by many observers that disproportion in the form of the chest is an important factor in the tendency to tuberculosis. The results of a series of investigations have not led him to coincide with the conclusions of others in this respect. He selected 275 healthy individuals and the same number of persons suffering from various stages of of pulmonary tuberculosis. These persons were subjected to close and careful comparative anatomical measurements, and from these the following conclusions were deduced:

1. That there existed no characteristic form of the thorax in those predisposed to pulmonary tuberculosis.

2. That changes in the form and diminution in the capacity of the chest, when such took place, appeared as concomitants and developed as the disease progressed.

It was a matter for remark that the general form of the chest in some of the tuberculous patients was even more favorable, if irregularity was alleged as a predisposing cause of disease, than was found in some of the perfectly healthy persons.

—*New York Medical Journal.*

AS A REMEDY AGAINST "ELECTRICAL SUNSTROKE," as the affection is called that attacks men exposed to the intense rays of the electric arc by means of which metals are fused and welded, is a veil or mask of glazed taffeta, supported by a wicker head-piece, and provided with goggles of gray glass.—*N. Y. Med. Record.*

THE INFLUENCE OF INSANITY ON HISTORY.

[*Med. Press and Circular.*]

A complete study of the effects of insanity and the various Protean forms of mental weakness and disorder, on history, could not fail to be of extreme interest both to the historian and the psychologist. A paper on this subject in its general bearings, by Dr. Grissom, of Carolina, published some time since in the *New England Med. Monthly*, is highly suggestive, and throws a new light upon the psychological conditions underlying the conduct of the great, the renowned, the gifted, the artistic, and the crowned heads of the world, from the earliest dawn of history down to the present day. What control over the lives and fortunes of their fellow-mortals has rested in the hands of men who, in the light of modern knowledge, cannot be regarded as other than "inspired" lunatics! How often, the author asks, has a paroxysm of mania, an epileptic spasm, or a fit of melancholia, cast the die of war, broken treaties, elevated one gilded puppet or dethroned another, and laid whole nations in tears and their homes in ashes? When one looks back with trembling horror on the scenes in the past which have made this earth a hell, of people constructing and then destroying, greeting and then killing, kingdoms rising on the ruins of kingdoms, and ever the fierce play of individual human passions in the foreground of the action, the question naturally arises, what part did madness play in this kaleidoscope of events? It is not necessary to go very far back to see that formerly only the more salient and obvious forms of mental aberration were recognized. Wild fury and dreary melancholy could be seen and feared by all, but could we apply the torch of modern science, lighting up the obscure places in the physiology and psychology of man, to the great leaders whose influence has directed the lines of history, we should doubtless find many of the mighty movements of men to have been stirred up by volcanic mental forces, leaping beyond the conservatism of normal life by uncontrollable impulse. We should see in fact that the sane were led on by the insane. We are brought face to face with the spectacle which was frequent enough in mediæval times, of strange epidemics of madness, when, for the time being, the reason of the masses was subjugated and overcome by the blast of imperious folly. Earnestness deepens into fanaticism; the whole mental life, perception, memory, conception, will—all the forces combined are eventually swallowed up in the overmastery of a single idea which enslaves the reason and runs its destroying course across the face of society. In social perturbations, such as the Revolution which changed the structure of the social edifice in France, and thence throughout the world, the effect of gusts of popular passion on the public mind, is well exemplified. The breaking-down of all the traditional harness of thought and action deprives the reason of its mainstays, with the result that minds of unstable equilibrium are unable to resist the torrent, and hopelessly drift down the stream of unreason. English history affords abundant illustrations of our theme, alas! for the divinity that doth hedge in the princes of the earth: as far back as the Henry whose melancholy was so touchingly and truthfully depicted by Shakespeare, and as recently as George III, whose long and distressing dementia is a matter of history. These cases are known to and read in detail by all, but how many more can be detected by the scrutiny of science! Perhaps the annals of no country other than Spain shows such a procession of crowned lunatics, sporting one moment with the grave affairs of what was once the mightest nation on the globe, and the next absorbed in the last new bauble or antic that attracted or swayed their iodiotic brains. The whole line of the Bourbon succession in Spain is a ghastly travesty of dominion. Leaving the musty past, we have but to remind ourselves of the artist King of Bavaria, who plunged into his own lake, dragging with him his physician; of King Otto to-day, whose insanity will end only with the grave; of Frederick William of Prussia, whose insanity forced the late Emperor William to the throne as Regent; and of Dom Pedro, late the monarch of Brazil, who for years vainly sought relief in travel from the cares of State. The revolution which has swept him from his throne may perchance restore to him that equanimity of mind to which he had long been a stranger. Who can resist the conclusion that the abnormal life of him who lives alone, elevated on an artificial pedestal above his fellows, is surrounded with precipices and pitfalls dangerous both to body and reason!

VALUE OF ELECTRICITY IN GYNÆCOLOGY.—Prof. W. T. Playfair, M.D., F. R. C. P. concludes:

1. The continuous current is capable of effecting much good in certain selected cases, otherwise little amenable to treatment; and its introduction is therefore, a distinct gain to gynæcology.

2. It is an agent of considerable power, and therefore, if rashly and injudiciously used, it is also capable of doing much harm.

3. It involves the use of a costly plant, and it is troublesome and tedious to work.

4. Since the proper selection of cases requires, moreover, much special knowledge and great care in the application of the remedy, it is never likely to come into very general use.

STUTTERING.—It is a well-known fact that stutterers, when speaking in a whispering voice, show no impediment of speech. A new method of treatment has been advocated by Dr. Coen and is as follows: In the first ten days speaking is prohibited. This will allow rest to the voice, and constitutes the preliminary state of treatment. During the next ten days speaking is permissible in the whispering voice, and in the course of the next fifteen days the ordinary conversational tone may be gradually employed.—*Kansas Med. Jour.*, Oct, 1889.

CHRYSAROBINE IN HEMORRHOIDS.—Dr. Kosobudski washes the hemorrhoid with a week carbolic lotion and then dries it well with cotton wool, after which he applies three or four times daily an ointment consisting of chrysarobin, 8 parts; iodoform, 3 parts; exact of belladonna, 6 parts; and vaseline, 150 parts. For internal piles suppositories are employed, which are composed as follows: chrysarobine, 1 gr.; iodoform, ¼ gr.; extract of belladonna, ⅛ gr.; cocoa butter, 30 gr.; glycerine sufficient to enable the mass to be made into the form of a suppository. If there is much hemorrhage a tannin suppository must be used. After three or four days of this treatment the pain and hemorrhage disappear, and after three months or so the hemorrhoids are found to have almost completely shrivelled up.—*The Lancet.*

ERYTHROXYLON COCA; ITS VALUE AS A MEDICAMENT.

By MARC LAFFONT, M.D., Paris.
Professor of Physiology at the Faculty of Lille, France.

[*N. Y. Medical Journal.*]

During the last few years the therapeutic use coca has been so greatly extended that it may be interesting and useful as a *résumé* to enumerate its many applications.

Although coca has, from its earliest introduction as a pharmaceutical product into France, enjoyed the highest professional recognition, this South American plant can hardly be said to have entered into current therapeutics. It is only since the discovery of the scientific application of the alkaloid of *Erythroxylon coca*, and since the important essays on the drug and the experiments made with it, that physicians generally have studied and recognized its therapeutic value.

It is well remembered how, in former years, the virtues of the salts of quinine were held to entirely supersede those of cinchona; in like manner this inevitable error has arisen with coca, its alkaloid, cocaine, only having been considered by many.

In consequence of the tests made with cocaine, which, from a physiological point, have established the dose and the limit of its toxic effect, and, from a medical view, have brought to light cases of abuse which have resulted in more or less serious accidents, many have been led to regard the plant coca itself as a dangerous drug.

The proof of the therapeutic value of the coca leaf is clearly shown by the many excellent results obtained in practice with such reliable preparations of the drug as have been furnished the profession by that worthy pharmacist, Mariana.

As to the comparison which many of our *confrères* make between the preparations of cocaine and coca, we do not fear to state that, howaver sound may be the theory of preferring to administer certain alkaloids to administering a preparation of a plant of which the virtues vary according to where and how it was gathered, the place of its cultivation, its quality, and the constitution and nature of the preparation —we repeat, we do not fear to state that in the majority of cases, as the alkaloid does not contain all the active principles of the plant, it cannot be preferred, except in special cases where the particular action of the alkaloid alone is desired.

The fact is well established that the salts of quinine cannot replace the extract, the wine, or the powder of cinchona, the tonic principles and the essential oils of which have, without doubt, shown a special therapeutic value; and I need merely cite the indisputable success obtained by Professor Trousseau with the powder of cinchona in checking malarial fevers which had resisted even the largest doses of sulphate of quinine. More especially cocaine cannot replace all the active principles and the essential oils of the leaf of *Erythroxylon coca*, as has been proved from the time of the earliest discovery and use of this plant.

In 1887, at the Institute of France (Académie des Sciences), and in 1888 at the Académie de Médecine, I demonstrated that coca, by virtue of its active principles, had three very distinct, separate actions (published in the "Proceedings"):

1. As an anæsthetic, acting upon the protoplasm of the terminations of the sensory nerves, preventing the transmission of sensations to the centers the unconscious sensibility of Bichat.

2. As a nerve tonic, producing functional excitement of the cerebral and spinal nerve centers and increasing the intellectual and muscular activity.

3. As a tonic to the unstriped muscular fibers of the stomach, the intestines, and the bladder, producing functional excitement of the constrictor action of the great sympathetic nerve, with consequent functional exaltation of all the smooth muscular fibers or muscles of organic life.

The dissatisfaction produced and the complaints which are made that the plant is wanting in uniformity of quality and is unreliable in producing the desired effects, are due to the varying quality of the preparation.

An essential requisite to produce reliable uniform preparations of coca is a thorough knowledge of the origin of the leaf, its nature, and its quality.

Careful study and researches made by Mr. Mariani for many years as to the origin, the nature, the species, the culture of the different leaves of coca, and the care which he gives to his preparations, have been the means of placing at our disposal products uniform in quality and unvarying in their effects in those varied cases where their internal administration is called for.

I will cite but a few names among those of my many *confrères* whose recorded experience with the Mariani coca preparations coincides with my own, which I am about to set forth, based upon continued observation in hospital and private practice.

It has long been known that the natives used the coca leaves to lessen fatigue, to keep up the spirits, and to appease the cravings of hunger.

The first and main application of the "vin Mariani" is, therefore, as a general tonic for persons either physically or mentally overworked (Brown-Séquard, Germain Sée, Dujardin-Beaumetz, Ball, Bouchut, A. McLane Hamilton, A. E. Macdonald, A. L. Ranney, L. C. Gray, L. Weber, Carlos F. Macdonald, H. M. Lyman, I. N. Danforth, P. S. Conner, J. K. Bauduy, C. H. Hughes); in convalescence after lingering, wasting diseases, where nourishment is needed and where it would be dangerous to overcharge the stomach; with all whose recovery is tardy from wasting or constitutional weakness; in chlorosis, anæmia, and rhachitis (Ch. Robin, Durand Fardel, Gubler, De Piétra-Santa, Fordyce Barker, Isaac E. Taylor, A. L. Loomis, W. T. Lusk, F. P. Foster, C. C. Lee, J. J. Henna, L. L. McArthur).

It is further used in diseases more specially referable to atony of the smooth muscular fibers, among which we class atony of the stomach. In dyspepsia, in those very common cases where this organ has become weak and torpid, is distended, and fails to secrete gastric juice, coca is well indicated (De Saint-Germain, Cottin, Dieulafoy, Salemi, Companyo, Rabuteau, A. J. C. Skene, P. A. Morrow, T. C. Giroux, Hunter McGuire, E. R. Palmer, O. O. Burgess, J. R. Leaming, Daniel Lewis, T. E. Satterthwaite, W. H. Pancoast, D. F. Woods, J. N. Hyde, L. G. N. Denslow, J. Leonard Corning).

It is also serviceable in weakness of the vocal cords, in the case of ministers, singers, actors, teachers and orators (Ch. Fauvel, Morell Mackenzie, Lennox Browne, Botkine, Cozzolino, Zawerthal, Poyet, Coupard, Fraenkel, Marius Odin, Labus, Massei, Louis Elsberg, R. P. Lincoln, Beverley Robinson, W. C. Jarvis, H. H. Curtis, C. C. Rice, C. E. Sajous, E. Fletcher Ingals, H. Schweig, T. R. French).

It is, moreover, of value in weakness of the vascular organs, with the anæmic, the plethoric, where, principally on the face, the small blood-vessels show enlargement or venous arborescence which points to a similar state in the vessels of the nervous centers. The same vascular weakness is also observed with the varicose, in whom coca is indicated; likewise with the paraplegic, with whom it regulates the circulation of the nervous centers (Bernard, Bétancès, Landowski, Casenave-Delaroche, Gazeau, Rabuteau, V. P. Gibney, Robert Newman, E. B. Bronson, J. E. Janvrin, B. McE. Emmet, W. O. Moore, W. J. Morton, D. W. Yandell, J. H. Etheridge).

It may be also as a regulator of the nervous centers that the infusion of coca known as thè Mariani produces such marvelous results in mountain sickness, in sea sickness, and in the vomiting of pregnancy. It is well remembered how this preparation sustained the illustrious General Grant during several months (Cuffer, Letellier, Dérrècagaix, Trossat, Bouloumie, Dechambre, Fordyce Barker, G. F. Shrady, J. H. Douglas, H. T. Hanks, G. R. Fowler, J. M. Keating).

From a psychological point of view and from mental pathology it may be stated that coca is the only drug which successfully combats melancholia, low spirits, and all forms of depression of the nervous system, upon which it acts "like fulminate," to use the felicitous expression of Professor Gubler.

Digestibility of Boiled Milk.—It is now very generally recognized, both by medical men and by the more highly educated section of the community, that it is a wise precaution to boil both water and milk before using them as beverages, and the practice is becoming very common. The growth of pathogenic organisms in these fluids, especially in milk, is often very rapid, and thus disease may be transmitted from one place to another. The temperature of boiling water puts an end to the life of the microbes, and also to the danger of infection. Another reason why boiled milk is so much used, especially in infant feeding, is that it is supposed to be more easily digestible than fresh milk. If, however, we can draw correct deductions from dogs to babies, it would now appear that this belief in the superior digestibility of boiled milk is founded on error. Dr. Randnitz, of Prague, has recently published, Hoppe-Seyler's *Zeitschrift für Physiologische Chemie*, certain very striking experiments on this subject. He admits what anyone may confirm for himself, that milk that has been boiled does not, on cooling and the subsequent addition of rennet, form a large coherent clot as does fresh milk; but a flocculent precipitate of casein is produced instead. He shows, however, by analysis of the milk itself, and of the urine and fæces, that much less nitrogenous material is absorbed from milk that has been boiled than from the same milk when fresh. The digestibility of fat is apparently unaltered by boiling. The following figures, however, illustrate the fact just alluded to as to the difference of digestibility of the proteid materials: In three days, 15.6 grammes of nitrogen were given in the form of fresh milk; of this quantity, 13.3 per cent. was found in the fæces; the nitrogen of the urine accounted for 77.3 per cent., so that 9.4 per cent. was retained in store by the growing animal. The animal was next fed on boiled milk; and 10.4 grammes of nitrogen was given in that form in two days; 18.6 per cent. of this was found in the fæces, 75.7 in the urine; so that only 5.7 per cent. was assimilated. The belief in the superior digestibility of boiled milk is, however, so widespread, that we should like to hear of the confirmation of the above remarkable results before we recommend mothers to leave off what is, from other points of view, the very praiseworthy custom of boiling the milk they give to their children.—*British Med. Journal.*

Pereirine as an Adjuvant to Quinine in Malaria.—It is well known that in certain cases of malaria quinine seems to fail of its specific effect; the dose is steadily increased without any apparent effect on the disease, but frequently with only too obvious results on the heart and nervous system. The depression thus caused intensifies the adynamic condition caused by the fever, and the patient finally dies of exhaustion from what a poetical pathologist has called "febrile autophagism." In such cases digitalis combined with quinine is often useful, but, according to Dr. F. Tibiricá (*Revista Medica de S. Paulo*, No 4), pereirine (an extract of *Pao pereira* bark) meets the indications far more satisfactorily. He says it doubles the therapeutic activity of quinine, whilst at the same time preventing the untoward effects frequently produced when the drug is pushed. Pereirine, according to Dr. Tibiricá, has no depressant action on the heart, and, as he somewhat epigrammatically sums up the case, "ten decigrammes of quinine with ten decigrammes of pereirine are equal (in malaria) to twenty decigrammes of quinine," without the disadvantages of such a dose of the latter drug. He relates the case of an old woman of eighty, suffering from organic disease of the heart, and reduced almost to the last extremity of exhaustion by intermittent fever; quinine in considerable doses had no effect, but the temperature was brought down almost at once to the normal standard, and the appetite and strength speedily returned when pereirine was combined with the quinine. In several other cases Dr. Tibiricá found the same plan of treatment equally successful.—*London Medical Recorder.*

SOMNAL AND PHENYLURETHAN. — In the *Zeitschrift des Apotheker-Vereines*, of November 10th, 1889, is a notice of a new hypnotic introduced by Herr Radlauer, of Berlin, to which he has given the name of somnal. This body is formed by the union of choral, alcohol, and urethan; it is a true chemical combination, and differs from the already known compound chloralurethan by the addition of $C_2 H_4$. It occurs in clear colorless crystals, which have a slightly bitter taste, and are very soluble in water and alcohol. It is given in two-gramme doses, and in half an hour after its administration a sound natural sleep is produced, which lasts from six to eight hours, and the patient experiences no unpleasant effects upon awakening. It does not derange the digestion, and has no influence upon the pulse or temperature. In fact, it combines the excellent qualities of chloral and urethan without any of their unpleasant effects. It is already in use in the hospitals of Berlin and Moscow, and appears to have given satisfaction. In the same journal is also a note upon a new antipyretic, antirheumatic, and analgesic, which has been introduced to the notice of the Turin Academy of Medicine by Professor Guaconnini, under the name of phenylurethan. It is a product derived from the aromatic group of carbon compounds: it is a white crystalline powder, insoluble in water, but very easily dissolved by concentrated alcohol. According to the professor, this phenylurethan is an energetic and safe antipyretic, while at the same time it operates in a pleasant manner. In doses of 0.5 gramme it produces a fall of temperature from one to three degrees, which lasts nine to twelve hours. It acts in a similar manner as other antipyretics in effecting the lowering of the temperature, but it has a special action upon the skin, producing profuse sweating. The temperature is lowered in twenty to forty minutes after the administration, and no unpleasant results follow. Phenylurethan is also asserted to be a safe and powerful remedy for chronic articular rheumatism; it relieves the pain and reduces the swelling of the joint. To produce this effect, a greater dose than 0.5 gramme is not required.—*British Med. Journal.*

CHAPPED HANDS.—The following is a pleasant and efficacious application for chapped hands:

℞ Quince seed,	½ ounce.
Water, .	q. s.
Glycerin, .	1 fluid ounce.
Alcohol, .	4 fluid ounces.

Macerate the quince seed with a pint of water for twenty-four hours, stirring frequently, strain with gentle pressure through muslin, and make up the volume to 1 pint with water; then add the glycerine and finally the alcohol containing the perfume, and stir briskly.—*Pharmaceutical Era*, Nov., 1889.

TREATMENT OF ERYSIPELAS WITH WHITE LEAD.—Dr. E. Stuver paints erysipelatous parts with white lead paint, and finds that it promptly relieves local pain and tenderness, limits the spread of the disease, and, by forming an impermeable covering, it prevents dissemination of the disease germs, and consequently infection of abraded or wounded surfaces. In some of his cases quinine and iron were also given internally.—*Med. News*, Oct. 5, 1889.

ROACH DESTROYERS. — Roaches may be exterminated if the following powder is liberally sprinkled in the cracks and corners of their *rendezvous:*

Borax, ...	37 parts.
Starch, ...	9 "
Cocoa, ...	4 " —M.

—*Medical and Surgical Reporter.*

A NEW ANTISEPTIC.

[*London Lancet.*]

An address on new antiseptic dressings, which Sir Joseph Lister delivered before the Medical Society of London on the 4th inst., in spite of its modest title, carries on the history of the author's work from the date—now five years ago—when he last addressed the society. At that time he had shown not only that corrosive sublimate formed a compound in the albumen in which the properties of the former were preserved, but that this compound, even after drying, was capable of dissolving in blood serum. Hence came the sero-sublimate gauze, which had a definite and admitted value. But certain defects soon revealed themselves in the gauze, which was somewhat harsh and not very absorbent. So the investigator pushed on, and sought for new agents. The first that offered was substantially the double chloride of mercury and ammonium, called sal alembroth. This presented great advantages; it was a better antiseptic, and at the same time was less irritating than corrosive sublimate. But again objections turned up, for the compound was so soluble, not only in water but in serum, that when the discharge was considerable, too much of the mercurial compound got to the edge of the dressing, and great irritation was caused. So another start was made with cyanide of mercury. This was found to be, in the author's language, high as to inhibitory, but low in germicidal, power. But it was irritating as well as very soluble, and the double cyanides—of which, without counting such bodies as the ferrocyanides, there are many—were next tried. Mr. Martindale suggested one of the insoluble double cyanides of mercury and zinc; such a compound has proved superior to all other substances hitherto used. There seems indeed some doubt as to the precise compound which exists in the preparation which is now used; but it is certain that the mercury in it is an important though not in quantity a large factor. The very ingenious method by which, after many trials, the substance was incorporated with starch, with which it forms a kind of combination whereby it can be affixed to gauze so neatly that in the dry state it does not become detached, and in the wet state does not wash away, and the apparently perfect success of the gauze, which is at once antiseptic, porous, permanent, and non-irritating, the address describes in detail.

But even the zinc mercury cyanide was not immediately successful, and some early difficulties caused it to be for a time abandoned. Then the patient investigator turned his attention to iodide of mercury. This is known to have antiseptic powers, and is besides very sparingly soluble in water. It is more soluble in blood serum, but then it is very irritating and difficult to fix to the gauze. The latter objection was removed by the employment of starch, then tried for the first time. Here, as with the double cyanide, a loose kind of molecular combination seems to take place, and the iodide does not dust off. But still the experimenter was not satisfied, and therefore, with the experience gained from the starch experiments, fell back on the double cyanide, with which, under carefully prescribed conditions, he is for the present contented.

Removal of Plaster of Paris Dressing.—Dr. Charles H. Richardson, of New York, describes, in the *Medical Record*, November 16, 1889, a way of removing plaster dressings as follows: I have used of late a plan in the removal of plaster and starch bandages which seems to do away with the annoyance to the surgeon and the discomfort, not to say distress, to the patient attending removal by the shears. It consists simply in the application of a piece of wire under the bandage, which is made to cut its way out when removal of the apparatus is desired. The limb is prepared for the bandage in the usual manner, either by the application of a flannel roller or by being well anointed with vaseline. A fine steel wire is then laid the length of the limb, in the situation that it is desired subsequently to cut, and firmly held in that position by an assistant. This is secured by a few turns of the plaster bandage, and the apparatus finished in the ordinary way. The wire should project four or five inches at each end of the bandage, so as to afford sufficient for a firm hold when the time comes for removal. These free ends of wire may be bent down after the casing is completed, to prevent the annoyance to the patient which the sharp ends might otherwise produce.

When the removal of the appliance is desired it is necessary to have the patient rest his limb on a table in order that it may be perfectly steady, and while the lower projecting end of wire is held firmly in place, to prevent its slipping underneath the bandage, the upper end is seized by a pair of pincers and by firm traction made to cut its way through the whole length of the casing. The apparatus may now be bent back and removed, the operation having caused no discomfort, which can hardly be said of the combined prying and cutting with a pair of plaster shears.

He calls attention to two points: The first is that no attempt should be made to remove the casing until it is completely and entirely dry, as the wire will not cut through a wet bandage. The second is, that while one wire will cut through the ordinary light dressing, such as is used on the arm, yet when an extra thickness is given to the apparatus, as in a plaster jacket or in an appliance to the lower limbs, I would recommend that two or even three wires be used, to make the cutting easier and more sure. If more than one wire be used, the second is laid as nearly over the first as possible, after a few layers of bandage have been applied, and a third over this if it be deemed necessary. Thus a layer of plaster and bandage will intervene between each of the two or three wires. The method of cutting is evident. It is done in sections, by pulling the wires in inverse order to that in which they were laid.—*Medical and Surgical Reporter.*

ARTIFICIAL INCREASE OF BONY GROWTH IN MAN.—Schuller (*Berliner klin. Wochenschrift*, 1889, Nos. 2 and 3). The longitudinal growth of bone under certain conditions (necrosis and other chronic inflammatory processes of bony tissue) as observed by v. Bergmann, v. Langenbeck, Ollier, Dittel, Weinlechner and Schott, Poncet, Howard Marsh, Tillmanns, Helferich, and others, led to further observation upon this point, with the result of developing the fact (Ollier) that moderate irritation of the diaphysis of the bone led to increase in its development; on the other hand, any interference with the epiphyseal cartilage leads to arrest of the growth of the bone. These latter have been frequently corroborated by later observers, and may now be deemed as established facts. S. shows that the determining cause, the fact as to whether there shall be lengthening or shortening of the limb depends not so much as to whether the irritation is applied at a greater or lesser distance from the line of the epiphysis, but upon the degree and extent of the irritation itself.

Different measures have been advocated to accomplish this purpose. Among these irritation of the periosteum produced by driving into the bone ivory pins (Ollier, v. Langenbeck, etc.), and firmly constricting the limb by means of an elastic tubing (Helferich) seem to have found the greatest favor. S. employed the latter, conjoined with massage, gymnastics, a special diet and bathing, particularly sea bathing. In addition to these, in a few cases, the irritation was initiated by driving a nickel-plated steel pin into the one or the other of the extremities of the diaphysis of the bone to be lengthened. He relates a number of cases, illustrating the method of treatment, and seems to have met with a uniform success in the use of the method. —*Brooklyn Med. Journal.*

LUPUS TREATED BY ICE.—Dr. Hans Hanssen (*Centralblatt für Chirurgie* No. 36, 1889,) reports the case of a woman suffering from lupus of the lower lip and chin, who had been treated without success by caustics, galvano-cautery, and curetting. The affected parts were extremely sensitive, so that even the application of iodoform evoked severe pains which could not be relieved by cocaine. As the employment of the above measures was always followed by the appearance of fresh nodules, Hanssen applied ice, and in three days caused a diminution of the sensibility, and three weeks later the lupus ulcers had healed, and there was no recurrence of new lesions.—*Intern. Jour. Surgery.*

ULCER OF THE STOMACH.—Dr. Tacke, in the *Deutsche Med. Wochenschrift*, Oct. 17, 1889, reports six cases of ulcer of the stomach, accompanied by hematemesis, which were cured by enforced rest of the organ. In this method all nourishment is given by enema until the ulcer has time to heal.

Of course the method suggested is only occasionally beneficial, yet it is surely worth a trial, as, in the majority of similar cases, all the efforts of the physician are fruitless.—*Med. and Surg. Reporter.*

THE IMPORTANCE OF EXAMINING THE EARS IN TROUBLESOME COUGH.

By Alfred C. Palmer, M.D.

[*North Carolina Medical Journal.*]

It is a thing so common to the majority of us, that we do not stop to question why that, in cleansing our ears with feathers, bits of cotton on toothpicks, and the like, we feel a peculiar tickling in the larynx and an irresistible desire to cough. If we consider for a moment, we must come to the conclusion that when this sensation is produced there must exist some direct nervous communication between the two organs, and if you will bear in mind a few anatomical facts, to which I beg leave to refer you, you will see that there does exist this communication and in a most direct manner.

You are aware that the eighth pair of cranial nerves consists of three, viz.: glosso-pharyngeal, pneumogastric, and spinal accessory, and it is to a portion of the two first mentioned that I will briefly call attention.

The glosso-pharyngeal, grossly speaking, arises by three or four filaments, closely connected together, from the upper part of the medulla oblongata immediately behind the olivary body. It passes outward across the flocculus and leaves the skull at the central part of the jugular foramen in front of the pneumogastric and spinal accessory. In passing through the jugular foramen the nerve presents in succession two gangliform enlargements, the jugular, the superior, and the petrous, the inferior and larger of two, involving the whole of the fibres of the nerve and forming its filamentary connections with other nerves at the base of the skull. The most important of these connections to us in tracing this communication is the one with the pneumogastric, to which we will call your attention later on. From the superior part of this petrous ganglion, or ganglion of Anderson, you will find given off a small but important branch, which, in ascending, passes through a small bony canal in the petrous portion of the temporal bone in its lower surface, finding its way to the tympanic cavity through an aperture in its floor. This is known as the tympanic branch, or Jacobson's nerve; here it divides into three branches, forming the tympanic plexus, and one of its branches is distributed through the mucous membrane of the tympanum and Eustachian tube.

Without finding it necessary to dilate upon the origin and intercranial portion of the pneumogastric, you will remember it leaves the skull at the jugular foramen immediately behind the glosso-pharyngeal. A short distance lower and we come to an enlargement, which is the superior ganglion; and upon its superior surface what do we find? The important connection with the petrous ganglion of the glosso-pharyngeal by filaments given off and entering the petrous ganglion of the glosso-pharyngeal inferiorly, at a point about opposite to where the tympanic is given off superiorly. The connection is not universal, hence the absence of the influence in some cases. By following the course of the pneumogastric still further downwards, we are brought in contact with the inferior ganglion, from the middle of which is given off the superior laryngeal, whose course and functions now claim our attention.

It descends by the side of the pharynx behind the internal carotid, where it divides into two branches, the external and internal laryngeal, the internal passing through the opening in the thyro-hyoid membrane, entering the larynx, supplying the mucous membrane, and is the nerve of sensation of that organ. Thus, since anatomically we have traced a direct connection between these two organs,—the tympanum and larynx,—first through Jacobson's nerve to the petrous ganglion of the glosso-pharyngeal, through this and its connecting fibres, where they exist, into the pneumogastric and its branch, the superior laryngeal, to the whole of the mucous membrane of the superior part of the larynx, it is reasonable to suppose that, should irritating influences exist in the tympanum, there must necessarily be some manifestation at the other end of the connection. This influence might not be evident were it not true that the superior laryngeal terminates in so sensitive a membrane, made so by its own presence; hence I make the statement that many of those troublesome, hacking coughs which we are so prone to attribute to reflex stomach troubles (dyspeptic coughs), subacute laryngitis, bad colds, and the like, are directly due to a disturbance of one kind or another in the ears, and that when these cases come under our observation we will often reach a satisfactory diagnosis and treatment by making a thorough examination of these organs.

My attention was first called to this subject about two years ago by the following case brought to me by the late Dr. Wm. Selden, of Norfolk, Va.:

Mr. ——, aged forty-five years, had suffered for some months from an almost continuous cough, with little or no expectoration. Had sought medical advice and treatment in various quarters, resulting in no relief. With the aid of Dr. Selden, a thorough examination of the chest was made, with only the detection of a slight mitral regurgitation, which the patient stated had been set down as the cause of all of his disturbances by one of the physicians whom he had consulted. Upon making the laryngoscopic examination I found what I took to be a sub-acute laryngitis. The whole of the superior region was congested, but I was somewhat surprised to find the secretions about normal. I made the usual astringent applications, and directed him to return in two days. These applications were repeated for several consecutive visits, followed by no improvement, when I, by chance, questioned him regarding his ears. He replied that his right gave him some discomfort. I introduced a speculum and found a much inflamed drum membrane. I found, also, a slight accumulation which somewhat obstructed my view, and to remove this I introduced a small wire probang tipped with a piece of absorbent cotton. Immediately my patient was thrown into a spasm of violent coughing. Upon regaining his speech, I asked him if I had produced, when I introduced the cotton, a like tickling sensation to that which had always preceded his attacks of coughing, and he answered in the affirmative. I then proceeded to introduce the probang with the greatest care, but my efforts were useless. I might approach the drum-head ever so lightly and with the merest fibre of cotton, and the same result would follow. After further questioning, I found that everything calculated to produce an impression, suddenly, upon the tympanum, such as sudden change from hot to cold, loud noises, and the like, would be followed almost immediately by one of those violent paroxysms. I at once discarded all treatment directed to the larynx and turned my attention to the tympanitis. I ordered application of heat, both by warm water syringing and hop poultices, externally, as hot as could be borne, alternated by blisters behind the angle of the inferior maxillary. I was pleased to note the happy result, which terminated in entire relief to the patient.

I have now under care two cases of eczema of the external canal with the inflammation extending down to the drum-membrane and slightly involving it. In each of these there exists a more or less disagreeable cough, which has been of such disturbance to one patient that he has sought medical counsel on several occasions for imaginary lung trouble.

ARTICULATE MURMURS HEARD IN PHTHISICAL CASES.—Phillip (*British Medical Journal*, May, 1889) writes of the two murmurs which are generally described in connection with tuberculosis. The first is the infra-clavicular murmur, first noted by Stokes. He mentions it as an increased action, often accompanied with a bruit de soufflet, which, when the upper lobe is diseased, may be occasionally heard in the subclavian artery. This murmur has always been regarded as due to pressure. The author objects to this theory. In the early stages of the disease, when the murmur is first heard, the amount of consolidation is too slight to produce the necessary pressure. In the later stages of the disease with large cavities, the consolidation is more or less destroyed. He thinks, however, that the murmur is produced by vibrations in the blood current, arising from defective relationship of the arterial calibre to the blood contained within it. When manipulation is made, the consolidated lung fails to expand, and the artery is, therefore, exposed in an unusual degree to the dilating force of inspiration, and, becoming insufficiently applied to the blood within it, a murmur results.

The author believes the pulmonary murmur to be due to the same cause. He records a post-mortem examination in which there was no retraction of the lung, which, of course, would have prevented any pressure on the vessel. —*Brooklyn Medical Journal.*

RENEWALS of subscriptions to the LANCET-CLINIC are now in order.

HEREDITARY SYPHILIS.

[*London Medical Recorder.*]

From an elaborate study of this subject, based on 261 cases, Professor J. Neumann, of Vienna, has arrived at the following conclusions:

1. A syphilitic mother is capable in every stage of the disease of transmitting it to her offspring, no matter whether she has been infected before or after conception.

2. Syphilis acquired by the mother after conception sometimes passes to the fetus, but this very rarely happens when the mother's infection has taken place in the last months of pregnancy.

3. If the mother be infected after conception, the father having been syphilitic at the time of procreation, the effect on the offspring is much more severe, the child either dying *in utero* or being born with syphilis.

4. In syphilis acquired by a mother after conception, the state of health of the father at the time of procreation being unknown, the situation is the same as when the syphilis is obviously post-conceptional.

5. When infection and conception occur at the same time, half the children die. At the same time it must be remarked that a large number of children remain free from syphilis, although that disease may have been in activity in both parents at the time of conception.

6. When infection precedes conception, the period at which the latter takes place is the first point for consideration. The longer the interval between infection and conception the more favorable is the prognosis as regards the offspring. An energetic mercurial course has always a good effect; for example, among the author's cases, even when infection and conception had occurred simultaneously, there were healthy children when the parents had undergone treatment by mercurial inunction.

7. The chances of escape for the offspring are greatest when the mother has acquired syphilis during pregnancy, especially during the later months, and the father was healthy at the time of procreation. On the other hand, the chances of escape are least when conception and infection have occurred at the same time, or when the father suffers from recent syphilis at the time of procreation. Of the fatal cases observed by the author, most come under the headings of "Conception and Infection simultaneous," and "Post-conceptional from a syphilitic father."

8. The dangers of paternal syphilis are well shown by certain cases in which the father was syphilitic at the time of procreation, the mother only having become infected after conception, and in which a macerated fetus was born prematurely. This is contrary to what was taught by Boeck and Oewre, who were of opinion that the child of a syphilitic father is healthy.

9. The observations to the effect that mothers infected during the later months of pregnancy usually bear healthy children seem to show that the practice of bringing on premature labor recommended by Oewre and other authors in not only unnecessary but detrimental.

10. That tertiary syphilis does not cause sterility in a woman is a fact that need only be mentioned.

11. Experience has shown that a protracted course of mercurial treatment, as recommended by Hutchinson, has a favorable effect on the health of the offspring.

12. The author cannot, however, agree with Hutchinson that it is unimportant as regards the intensity of the disease in the child whether one or both of the parents were syphilitic at the time of conception. Out of forty-one of the author's cases, in which conception and infection took place at the same time, only fourteen children were healthy.

Recurrence of Cancer of the Breast after Amputation.—From microscopic examinations of carcinomatous mammæ amputated by Professor Küster, Dr. Heidenhain predicted a return of the cancer in twelve cases, because parts of the morbid growth had remained in the wound. In the other cases he diagnosed a radical cure, which diagnosis had proved correct up to the date of the publication of his paper, because the operation had removed the whole of the morbid growth. The usual cause of the recurrence is that only microscopic parts of the gland or the tumor remain on the surface of the pectoralis major. In thin women the whole mamma is firmly attached to the muscle, but in obese subjects small glandular lobules are generally attached to the fascia between the mamma and the muscle, so that in amputation above the muscle small particles of gland may easily be left. Every mamma in which a single cancer node is found, according to Heidenhain, is largely, perhaps *in toto*, diseased. He found the epithelial cells of the acini proliferating in all parts of the mamma, and observed hypertrophy of the periacinous connective tissue, and he believes that these acini remaining in the wound form the origin of late secondary growths. In the retro-mammary fat there are, side by side with the blood-vessels, lymphatics leading from the mamma to the subjacent fascia, and the latter were, in two-thirds of the cases, full of metastatic cancerous masses. The pectoralis major itself is only affected when a metastatic cancernode invades the muscle from the facia, or the original tumor attacks it by its own simple growth. Heidenhain concludes that, to make amputation of the mamma more successful, it is necessary, even in freely movable carcinomata, not only to remove the whole mamma, but also a superficial layer from the whole of the pectoralis major, and in tumors which are closely connected with the muscle to entirely extirpate the latter.—*The Lancet.*

The Treatment of Phlegmasia Dolens. —The *Union Médicale* attributes to Delore and Poullet the following sketch of the proper treatment of phlegmasia alba dolens:

Absolute rest in the dorsal decubitus, the affected member placed in an attitude of forced extension, and a mixture of oil and chloroform applied; then cotton batting is placed around the limb, which is to be kept warm at an even temperature. Movement and repeated examinations are to be avoided. To combat pain, narcotics by the mouth, subcutaneous injections of morphine, and laxatives are in order. When pain begins to subside, alkaline and diuretic drinks may be given to hasten resolution of the œdema. If there is much œdema, the fluid may be allowed to ooze out through small incisions or through a drainage-tube. The patient should be kept in bed for thirty days after the cessation of pain and until the œdema has almost completely disappeared.—*N. Y. Medical Journal.*

See Reduction Rates on advg. page 12.

LOCALIZATION OF INTRACRANIAL LESIONS.

By J. T. Morrison, in *Birmingham Medical Review.*

In this paper the author gives a short historical retrospect, an outline of the localization of functions (motory and sensory) in the brain, preceded by an anatomical sketch of the convolutions, an "estimation of localizing symptoms," and lastly, "fallacies in diagnosis." Wood-cut illustrations accompany the text. The following is stated under the heading "Sensory centres."

1. *Vision.*—The leading authorities are not yet harmonious in their localization of the visual centre. Ferrier found that electrical stimulation of the angular gyrus caused a movement of the eyes to the opposite side, suggestive of a visual sensation, for the mere fact of movement following stimulation of an area is not of necessity a proof that the region is a motor one; and it therefore becomes necessary to perform the complimentary experiment of destruction of the given area. In Ferrier's hands the result of ablation or cauterization of either angular gyrus in the monkey was invariably the production of a temporary loss of vision of the opposite eye. If the functional eye were bound up, the animal gave unequivocal evidence of being quite blind. Usually, however, recovery ensued in the course of a few hours. Gerald Yeo entirely corroborates this observation. Similarly, bilateral decauterisation of the angular gyrus caused a temporary total blindness, the animal being in complete possession of all its other faculties. It is manifest, therefore, that the whole of the visual centre does not reside in this region, though Ferrier was at first disposed so to locate it. His subsequent investigations in the occipital region have thrown considerable light upon this point. He found that almost complete removal of both occipital lobes caused no appreciable impairment of vision. As it is indubitable that the occipital lobes are concerned in the sense of sight, this is a remarkable fact; and it has been confirmed by Gerald Yeo, and by Horsley and Schafer. Recent experiments by Schafer conflict with those above described, but agree with the statements of Munk that lesion of one occipital lobe causes

hemianopia towards the opposite side, and that bilateral lesion causes complete blindness. Ferrier further found that total blindness did not result from any cortical mutilation, short of destruction of both angular gyri and both occipital lobes. Munk denies that the angular gyrus has any concern in vision, though his described observations hardly support this view; for after destruction of the left angular gyrus, the brusque approximation of a finger to the right eye only caused winking when the eyelids were actually touched. Clinical and pathological data in man are not sufficiently abundant and precise for a final determination of these points to be made at present.

On the one hand there are on record cases in which crossed amblyopia with disease involved one angular gyrus, as in Starkey's case, published in the *Medico-Chirurgical Tranctions* for 1884. Whilst, on the other hand, complete hemianopia has been recorded in disease of the occipital lobe and especially of the cuneus; and absolute blindness has been alleged by Gowers to be a consequence of successive lesions in the two occipital lobes. Ferrier suggests that hemianopia, divided exactly by a line passing through the fixation point is more probably due to lesion of the optic tract; and when the dividing line swerves towards the defective side the probabilities are in favor of a cerebral lesion.

2. *Hearing.*—Stimulation of the superior temporo-sphenoidal convolution caused a movement suggestive of an auditory sensation on the opposite side—*i. e.*, pricking of the ear and turning of the head and eyes, with dilatation of the pupils. Identical movements are evoked by a loud and unexpected noise. Mutilation limited to the cortex of this convolution was followed by marked indications of deafness in the opposite ear. Symmetrical ablation caused total and permanent deafness. Pathology lends strong support to the inductions drawn from experiment. The auditory centre has therefore by general consent been localized in the posterior half of the first temporo-sphenoidal convolution. This region has been found atrophied in cases of congenital deafness, and lesion of it has been accompanied by loss of hearing in the opposite ear. It is interesting to observe that sooner or later hearing has been regained in such cases, doubtless owing to functional compensation effected by the uninjured centre in the other hemisphere. Dr. Gowers mentions two cases of tumor involving the superior temporo-sphenoidal convolution, in which convulsions were ushered in by the hallucinations of hearing.

3. *Smell.*—A study of the comparative anatomy of the olfactory bulb and rhinencephalon points to the hippocampal lobule (*uncus*) as the cerebral organ of smell, its variations of size in different animals corresponding to differences in the development of the sense. Electrical stimulation affords strong confirmation, yielding a reaction identical with what occurs when a pungent odor is applied to the nostril—viz., torsion of the nostril and lip on the same side; in this last respect the experiment furnished the only exception to the rule of opposite-sided movements. The evidence of pathology is corroborative—*e. g.*, epileptic fits beginning with an olfactory aura occurred in association with softening of the anterior extremity of the uncinate convolution. It would further appear that, in man at least, some fibres of the path reach the opposite hemisphere, since, according to Gowers, "the sense of smell has been affected, together with the other special senses on the same side, by disease of the posterior part of the opposite internal capsule, and also by disease of the cortex."

4. *Touch.*—Can a tactile centre be localized? Most authorities agree that it can, but there is great discrepancy as to the regions assigned. Ferrier and Horsley advance cogent experimental proof for allocating the centres in the opposite hippocampal region and gyrus fornicatus, the two together constituting the falciform lobe of Broca. Reasons have also been assigned for localizing the centre under consideration in the so-called motor zone, but the arguments for this hypothesis are far from conclusive.

In the final part of the paper the *fallacies in diagnosis* are thus treated: "It remains to point out certain fallacies which are liable to enter into our interpretation of the phenomena of encephalic lesions. It is not too much to say that no other department of our profession more severely taxes the resources of the diagnostician. Many cases, indeed, present perplexities which baffle the most acute investigation, and in such we must be content, in the existing state of knowledge, to make an approximate diagnosis. *a.* The symptoms may be indirect—*i. e.*, due to a lesion remote from the part whose function is disturbed. This may be produced in one of the following ways: (1) Pressure, acting mechanically through a distance; (2) blocking of a nutrient vessel of the cortex by a tumor or other lesion at the base; (3) interruption of fibres connecting associated centres, as in the sensori-motor nexus of the speech apparatus. *b.* Reflex spasm, closely simulating central disease, may be met with. Monospasm, and even unilateral convulsions, have been caused by peripheral sources of irritation. A fibroma involving a nerve-trunk in a palm produced fits of typically Jacksonian character, cure being effected by removal of the growth. The case is recorded by Mills, of Philadelphia (*New York Med. Record*, September 22, 1888). *c.* A fallacy of rare occurrence is the existence of a cerebral lesion on the same side as the paralysis. This is not of any great practical importance, but still needs to be borne in mind. It is explained by non-decussation of the pyramidal tract in the medulla, an anatomical abnormality which has been reported by Flechsig and others. *d.* There may be multiple discrete lesions, though the symptoms are explicable on the hypothesis of a solitary and definitely located lesion. *e.* Hysteria and allied functional neuroses give rise to symptoms closely simulating the effects of coarse morbid processes. In the case of women, and especially where operation is contemplated, scrupulous care requires to be taken to eliminate this possible fallacy. *f.* Ocular defects, as hypermetropia, myopia, astigmatism, are apt to produce in addition to imperfect vision, headache and even vomiting. There may then, in such cases, be a superficial resemblance to the phenomena of cerebral tumor. *g.* Meniére's disease, with its associated tinnitus, deafness, vertigo, and vomiting, is liable to be mistaken for lesion of the temporo-sphenoidal lobe, though actually due only to disturbance of the labyrinth. *h.* Anæmia, uræmia, also plumbism, and other metallic poisonings, may be mistaken for intracranial disease. *i.* Lastly, it is well to remember that extensive mischief may exist without furnishing objective symptoms. In this class are included tumors of the frontal and occipital lobes and of the cerebellum; generally of a soft, succulent nature, and forming so slowly that the nervous tissues are able to adapt themselves to the displacement, or pressure is relieved by thinning of the skull. Broadbent's hypothesis of the bilateral representation in the hemispheres of one-sided movements which are habitually associated on the two sides, serves to explain why certain focal lesions elude localization, the uninjured centre compensating for the lost function of its fellow."—*London Med. Recorder.*

PHYSICAL SIGNS OF PULMONARY CAVITIES.—Maguire (Clin. Lecture, Brompton Hospital, London, June 12, 1889; Personal Report) spoke of certain conditions that might be found in cases of pulmonary cavities. From these remarks are taken certain observations relating to the percussion-note.

There are three modifications of the percussion-note typical of pulmonary cavities:

1. *Weinbruck's Modification.*—Percussing during either act of respiration with the mouth open gives a higher pitch than when the mouth is closed. When the mouth is open we have three cavities—nostrils, mouth, and pulmonary cavity—and the vibrations produced in this continuous tube are of different quality from those produced where the exit of the air is shut off by one or more being closed. The bronchus must have free communication with the cavity.

2. *Friedreich's Modification.*—In inspiration the note is higher than in expiration. During inspiration the chest-walls are acted upon by muscles which cause a certain amount of tension, and so raise the note.

3. *Gerhardt's Modification.*—The percussion-note is higher when upright than when lying down. The cavity must contain a certain amount of fluid. When upright, the long axis of the cavity is parallel with long axis of the body. There exists a long column of air which is set in vibration. When lying down, the relation of the axis of the cavity to that of the body is changed, and there exists merely a short column of air, the vibrations of which differ from the first. The fluid in these conditions gravitates to the bottom of the cavity. When upright, it occupies a small space; but when lying down, it covers, necessarily, a larger area, and produces a column of air having width, but not length.—*Brooklyn Med. Journal.*

FORCIBLE FLEXION OF THE BODY IN LOCOMOTOR ATAXY.

[*London Med. Recorder.*]

At the thirteenth Congress of the Italian Medical Association, recently held at Padua, Dr. P. Bonuzzi communicated the results of a number of experiments which he had made on the dead body with the view of ascertaining the physical effects produced on the spinal cord by suspension. These experiments led him to the following conclusions:

1. During suspension the spinal cord undergoes a marked change in its relations to the vertebral column, being displaced upwards to the extent of from three to four millimetres, this result being due to slight increase of the distance between the vertebræ owing to relaxation of the muscles and stretching of the vertebral ligaments.
2. The roots of the spinal nerves, with the exception of the cauda equina, do not seem to be appreciably stretched, although they are slightly altered in position.
3. The tension of the cerebro-spinal fluid is increased.
4. During suspension the vertebral column is apparently lengthened to the extent of from one and one-half to three centimetres, this elongation, however, being due more to separation of the spinous processes than of the bodies of the vertebræ. The body, as a whole, is lengthened to the extent of from two to three centimetres during suspension.

Dr. Bonuzzi thinks that the good effect of suspension is due to mechanical pulling on the spinal cord through the cauda equina; this has a favorable influence on the circulation within the cord, whereby the irritating effect of the morbid process on the fibrillæ of the nerve-roots is lessened, and the function of any elements not yet destroyed is restored.

In a second series of experiments Dr. Bonuzzi proved (to his own satisfaction) that by bending the body forcibly forward, so as to bring the knees into contact with the abdomen, the spinal cord and the cauda equina are subjected to very considerable stretching. Having made an opening into the vertebral column and inserted a needle perpendicularly to the long axis of the cord, he noted that on bending the body forcibly forward the needle was carried downwards for a distance of from eight to twelve millimetres, the spinal cord itself becoming thinner and more resistent, and the cauda equina becoming extremely tense. Dr. Bonuzzi found that traction on the sciatic nerves stretched the cauda equina, but did not draw down the cord more than two millimetres. In forcible flexion the vertebral column undergoes an apparent lengthening of from six to fourteen centimetres. Dr. Bonuzzi also observed that as the body was bent forward a considerable amount of venous blood escaped from the opening into the vertebral canal, this result being due, according to him, to the pressure on the spinal veins caused by the forcible flexion of the body.

The inference drawn from these experiments by Dr. Bonuzzi is that by forcible flexion all the therapeutical advantages of suspension can be obtained without its drawbacks. He has as yet only once had the opportunity of trying this method on the living subject, but in that case the results were very encouraging. The patient was a woman, who had had all the characteristic symptoms of locomotor ataxy in a very marked degree for nine years. Flexion was applied in the following manner: The woman lay on her back, and the legs were drawn up, by means of a towel twisted loosely round the ankles, till the knees touched the abdomen; she was kept in this position at first for half a minute, and then for gradually lengthening periods up to three minutes. The treatment was applied on alternate days, forcible flexion being carried out two or three times on each occasion. After three sittings the lightning pains became less severe, and after eight sittings they almost entirely ceased. The power of locomotion was so far regained that the woman was able to carry a bucketful of water from room to room, a thing she had not been able to do for three years. She could also stand with her eyes shut for half a minute without falling. The irregularity of the pupils and the absence of knee-jerk remained as before. In other respects improvement was progressive and lasting.

Mechanical Treatment of Locomotor Ataxy.—Professor Th. von Jürgensen, of Tübingen, describes (*Deutsche med. Wochensch.*, No. 40) a mechanical mode of treatment which has been used for the last fifteen years by Friedrich Hessing, a well-known German "orthopedist," of the good effects of which the Professor has himself been a witness. Testimony of this kind is the more striking from its rarity, as medical men are, as a rule, by no means too ready to acknowledge that any good can come out of the Nazareth of "unqualified" practice. According to Professor von Jürgensen, the stretching of the vertebral column and the consequent improvement in the spinal circulation are the essential therapeutic features in suspension, and are obtained just as effectually and with less trouble by an accurately fitting supporting "jacket." The latter has the immeasurable advantage of being permanent instead of being applied for a minute or two at longer or shorter intervals of time. The object of the apparatus is to relieve the spine of the pressure of the upper part of the body and to fix it in the extended position. The "jacket" has not only to be applied with the nicest precision of adaptation to each individual case, but the patient must be closely watched and the necessary changes in the apparatus made as he gains flesh, etc. In advanced cases a year's treatment is usually necessary; in slighter cases less time will be required. Hessing insists on having the patients in his establishment under his own eyes during all the time they are under treatment. According to Professor von Jürgensen the order in which the various symptoms subside is tolerably regular. The vesical and rectal troubles are first relieved; a little later the lightning pains and paræsthesiæ disappear; next improvement is noticed in the eye symptoms. Lastly, the power of walking is regained, but, as a rule, this does not take place till several months have elapsed. The improvement in digestion and in the capacity of taking exercise, together with the recovery of the power of sleep, lead to great improvement of the general health. To the suggestion that these good results may be due to spontaneous subsidence or remission of the morbid process, Professor von Jürgensen replies that the effects are too uniform to admit of this explanation.—*London Medical Recorder.*

It has been proved that heartbeats can be detected by electricity. The hands of a subject dipped into two basins of water in connection with a capillary electrometer, cause a deflection of the instrument at every beat of the pulse.

Miscellany.

MEDICAL HUMOR.

Collated from various sources by T. C. M.

VACCINATION.—When Jenner began his vaccinations, he, of course, met with much opposition. Caricature and ridicule were freely employed. The following lines, written by a doctor of the time, are very little more unreasonable than many of the arguments used to-day by the opponents of the procedure:

"O Jenner! thy book, nightly phantasies rousing,
Full oft makes me quake for my heart's dearest treasure;
For fancy, in dreams, oft presents them all browsing
On commons, just like little Nebuchadnezzar.
There, nibbling at thistle, stand Jem, Joe, and Mary.
On their foreheads, oh, horrible! crumpled horns bud.
There Tom with his tail, and poor William all hairy,
Reclined in a corner, are chewing the cud!"
—*Bristol Medico-Chirurgical Review.*

* * *

AH!—One of the "sweet graduates" in a neighboring town, says the Sumter County, Florida, *Times*, read an essay on physiology, in which she said: "The human body is divided into three parts—the head, the chist, and the stomick. The head contains the eyes and brains, if any. The chist contains the lungs and a piece of the liver. The stomick is devoted to the bowels, of which there are five, a, e, i, o, u, and sometimes w and y."—*Western Reporter.*

* * *

DRAKE'S PHARMACEUTICAL JOKE.—It is said that Drake, when the ships of the Armada turned their tails, sent to Elizabeth the word "Cantharides"—that is, "The Spanish fly."—*Medical News and Notes.*

* * *

HER DOCTOR.—Doctor: "You see, wifey dear, I have pulled my patient through after all. A very critical case I can tell you."

Wife: "Yes, dear hubby, but then you are such an excellent physician. Ah, if I had only known you five years earlier, I feel certain my first husband, my poor Thomas, would have been saved."—*St. Joseph Medical Herald.*

* * *

WHAT!—Mrs. Veneering: "Really, my dear Doctor, you must come to my ball. It is Lucy's coming-out affair, you know, and I shall take no refusal—none at all."

Dr. Bygfee: "Well, you see, my dear madam, I am a very busy man. My time is not my own—"

Mrs. Veneering: "Say no more. Include the visit in your bill. There, I shall expect you. Good-by.—*South Pacific Medical Journal.*

* * *

SPIRITUS FRUMENTI.

THIS PREPARATION IS OFFICIAL.

Please give to the bearer the above-named potation—
He's a pretty good chap, and employed at the station;
The liquid he craves is known as frumentum,
And my name at the bottom will tell you who sent him.
The letters "Q.S.," to be very explicit,
Is a medical dodge—known as "quantum sufficit,"
But, if a special translation you crave for,
It is simply this: Give him all he can pay for.
His case is severe, so pray don't refuse it—
He's a member of church, and knows how to use it.
So, please, don't fail this, my first requisition,
For I'm sound on the goose—an old school physician. —*Medical Age.*

* * *

SYMPATHETIC.—Cook: "Sure, mum, your pet bulldog's just after bitin' th' lig off av the butcher-boy!"

Mistress: "Dear, dear! How dreadfully annoying! I do hope he was a clean boy, Mary."—*Medical Record.*

La Clinique gives the following instructions for the removal of gunpowder stains from the hands of sportsmen: The pigmented skin should be washed with distilled water containing half its own weight of biniodide of ammonium. The color then changes to red, and the red stains disappear on the application of a little dilute hydrochloric acid.—*London Medical Recorder.*

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CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, December 21, 1889. *WHOLE VOLUME LXII.*

Original Articles.

IRRITATION OF THE BRAIN.

A Paper read before the Cincinnati Medical Society, October 15, 1889,

By F. C. GORES, M.D.,
Cincinnati.

It is a well-known fact that in the department of diseases of the nervous system, and especially diseases of the brain, the results of anatomical pathological research and those of clinical observation do not always agree with each other. They do not always cover the same ground, and sometimes do not even touch upon each other. Under these circumstances it has been necessary to make a distinction between anatomical or organic diseases on the one hand, and functional diseases on the other hand. Of the former we know not only the symptoms characteristic of the disease, but also the corresponding anatomical lesions, and the one given, we may predict the other. In functional diseases, on the other hand, we know only certain groups of symptoms, and, though we may suppose that there must be some material changes in the substance of the brain, which are the cause of these symptoms, we have no definite knowledge of the nature and character and the location of these changes. Although it must always be the aim of scientific medicine to prove that the functional disorders of the brain correspond with the anatomical lesions of the same, at the present time we cannot say that we have reached that point, notwithstanding the great progress that has been made within the past ten years.

But there is another class of derangements of the brain, which were formerly regarded as due to hyperæmia of the brain, but to which we may now assign an intermediate position between the anatomical and functional diseases of the brain, not because we know the anatomical lesions to which they are due, but because in nearly every case a sufficient cause is found to be a certain agent (or stimulus), or of a chemical nature (for instance alcohol), which acts upon and stimulates the brain. Liebermeister speaks of these disorders under the term, "Irritation of the Brain," and this is to be the subject of my paper this evening. There could be five or six subdivisions of this subject, but as I did not begin to write in time, I could not take up the whole subject, and must confine my remarks to three of them:

I.—*Febrile Disturbances of the Functions of the Brain.*

In every disease with high fever we find cerebral disturbances, that may not be very striking in some cases, but in others reach to a very high and dangerous degree, especially in cases characterized by great intensity and long duration of the fever. There is usually a very gradual and almost insensible transition from the slightest trace of disturbance to the highest degree of it, but, for the sake of clearness, we may follow Liebermeister, who adopts four degrees of the disorder.

In the first degree there is no disturbance of consciousness. There is an indistinct feeling of general malaise, restlessness, sometimes agitation or general mental depression, a feeling of oppression at the heart, heaviness of the head and drowsiness, aversion and inability to mental work, especially to follow a continuous line of thought, sensitiveness and aversion to impressions of the senses, headache of varying degree; at the same time the intellect is perfectly clear. There is no sound sleep, it is disturbed by frightful, incoherent dreams. Frequently we find painful numbness and pain in limbs and body, a feeling of weakness and exhaustion; energetic muscular action is possible only by a strong impulse of the will; the patient staggers when walking or standing, and cannot keep his outstretched arm at rest. This, the lowest degree of cerebral disturbances, is to be found in every case of high fever. All the symptoms, a certain feeling of weakness excepted, disappear as soon as the fever ceases or shows a considerable remission.

In the second degree we meet with temporary disturbances of consciousness. Drowsiness is increased. When trying to arise or stand, there is vertigo, disturbance of vision, tinnitus aurium. The patient is apathic and indifferent in a moderate degree; does not react much to impressions of the senses; it takes him some time to understand questions; he answers slowly and reluctantly. He may be delirious when slumbering (for he does not sleep soundly), and at times, when he does not watch himself, we may find delirium also during waking; but the intellect is quite clear when he is aroused; muscular action is still more interfered with and less certain. This second degree is present with every high fever of long duration. *Per se* it need not excite any fear; the symptoms will soon disappear after the cessation of the fever.

The third degree is represented by a continuous or lasting disturbance of consciousness, but which may sometimes be made to disappear for a time. The brain symptoms are characterized either by irritation or by depression; sometimes the symptoms of irritation are gradually replaced by those of depression. The symptoms of irritation are restlessness, excitement, confusion or complete ignorance as to the surroundings, more or less active delirium with illusions and hallucinations, in consequence thereof loud talking and screaming, attempts to leap out of bed, and sometimes complete attacks of mania (mania transitoria); subsultus tendinum, convulsions, sometimes limited to certain groups of muscles, especially in children, general convulsions. More frequently we meet with symptoms of general mental depression. The patient is apathic, indifferent as to those around him, as well as to his own condition. Sometimes all indications of mental activity are wanting; there is a soporous condition, quite different from sound sleep. At other times we find mild muttering delirium; illusions and hallucinations are here indicated by carphologia, tearing of the blankets, etc; urine and fæces are often passed involuntarily. By strong impressions, loud calling, or by pain the patient may still be aroused to consciousness, and induced to express his wishes. This third degree is always an indication of real danger, and the more so the longer this condition continues without any remission, and the more difficult it is to arouse the patient to intervals of consciousness. At the cessation of the fever, and even with a considerable remission of temperature, consciousness is restored, but often very slowly and gradually; slight or short remissions of temperature have no effect.

The fourth degree is characterized by lasting unconsciousness, from which the patient can not be aroused. There is more or less general relaxation; the patient cannot keep his place in bed, even in the recumbent position; he sinks from his pillow to the lowest place in bed. Urine and fæces are voided unconsciously; sometimes we find retention of urine. There is no reaction to loud calling or pushing, but when a very sensitive spot is struck there may be distortion of the face or groaning. The prognosis in this stage is very unfavorable, and recovery is impossible unless the hyperpyresis is soon removed.

Sometimes we see the four degrees of cerebral disturbances succeed each other in the order indicated, especially so in diseases where the temperature rises slowly and gradually to a high degree, as for instance in typhoid fever. In those cases we also find mostly the less striking symptoms of mental weakness—mild delirium. But in cases that reach to a very high degree of temperature in a short time, the symptoms of the lower degrees may be only slightly indicated or entirely wanting, because they are marked or rapidly replaced by those of the higher degrees, especially the more striking symptoms of more or less violent excitement.

Formerly the opinion prevailed that these brain symptoms, which were mentioned as peculiar to fever, were due to hyperæmia of the brain or to changes in the blood (dissolutio sanguinis, toxæmia, etc). At the present time there is a tendency to ascribe them to a direct action upon the brain by specific infectious materials, bacteria and other organisms or their retrograde products, the ptomaines. That both of these opinions are wrong, and that the brain symptoms are simply the effect of the abnormally high temperature, is proved by the fact that these symptoms are essentially the same in all diseases connected with fever, and their presence or absence is determined by the temperature, and partly by the idiosyncrasy of the patient. Whenever we succeed, by proper antipyretic treatment, to prevent persistent high temperature, the cerebral symptoms are also prevented; and in all cases where they are present, they may be made to disappear by any treatment which sufficiently reduces the temperature. But here we must not forgot that in consequence of persistent and excessively high fever we may have material changes in the brain, and in such cases, even after the fall of temperature, a certain length of time will be required before the cerebral functions return to their normal condition. It is evident that in this paper I speak only of brain symptoms peculiar to fever. It is a matter of course that in other cases, where there are complicating organic diseases of the brain, or where special poisons are active,. we will find other symptoms that are quite independent of the fever. In some of the infectious diseases it has been proven that the infectious material may act directly upon the brain and its functions. Febrile temperature is one cause that calls forth certain characteristic changes in the functions of the brain. That there are other causes that may produce the same or similar symptoms is not to be doubted. In any given case it becomes the duty of the physician to distinguish between mere febrile symptoms and symptoms due to other causes, and here the effects of antipyretic treatment may be of very great diagnostic value. In this connection I may be allowed to refer to a typical case. I was called a little before midnight to see a child, one year old, that had suffered from diarrhœa and vomiting for several days, perhaps a week. The patient had been convulsive all day; he was now perfectly unconscious and could not be aroused by any means. The rectal temperature was 107°. Ice was not to be had at that time of the night. I did not dare to resort to the full bath, because most of our people are not sufficiently educated to appreciate the cold bath. So we procured tolerably cold cistern water and made applications to head and body. After half an hour the temperature was 105°, within an hour it was 103°, and within another half hour it was 101.5°. The boy now became conscious, opened his eyes and was quite another child. The proper treatment was instituted, and the child made a good recovery.

Some authorities would have called this a case of poisoning by ptomaines, but it was a typical case of irritation of the brain from excessively high temperature. The symptoms were of the highest degree, but they promptly yielded to antipyretic treatment. The principal cause of the high temperature was the original disease, which is mostly due to the introduction into the alimentary canal of infectious or infected material, but derives its name from the chief symptom—the diarrhœa.

Not only the febrile high temperature, but every other rise of temperature from any cause whatever, will call forth the corresponding cerebral disturbances. If in a healthy person we raise the temperature to a considerable degree by a hot bath or vapor bath, the symptoms of the first degree will arise; if the rise of temperature is excessive or is kept up for too long a time, the symptoms are aggravated; and those of the highest degree are produced by sunstroke, or, as it has been properly named by H. C. Wood, thermic fever, in which a return to the normal condition is often retarded or even prevented, because the cerebral centers for the regulation of temperature have become disordered or disorganized by the excessively high temperature. The treatment of the febrile disturbances of the brain is clearly indicated by the etiology. Timely and proper antipyresis will either prevent them, or after they have become established soon remove them.

II.—*Irritation of the Brain with Depression of the Temperature.*

In grave febrile diseases, especially typhoid fever, now and then a peculiar condition is met with, which Liebermeister calls "irritation of the brain with depression of temperature." The case may have followed a typical course with continually high and gradually rising temperature and the corresponding cerebral symptoms. All at once the brain symptoms assume another character. There are either symptoms that might suggest a meningitis, or complete attacks of mania, or such of a melancholic character. The pupils do not react to light, and, what is most striking, the temperature, which had followed the typical course, and for several days had been above 40° Celsius (104° F.), now when the peculiar cerebral symptoms set in, falls considerably, even below normal, and ranges in a very irregular manner between 37°–38° Celsius (98.5°–100.5° F.), or even 36°–39° Celsius (97° or less, and 102° F.) In the same category with the above might also be placed those cases of sunstroke, to which Wood applies the term, "heat exhaustion." I remember to have seen a mild case of the kind, with abnormally low temperature and a trace of maniacal excitement, which at that time I thought perhaps to be simulated, but which may have been genuine. In these unusual fever cases that afterwards take a favorable course, the peculiar brain symptoms disappear again after a few or several days (or even weeks); at the same time the temperature rises to such a degree as corresponds with the stage of the disease, and the latter takes its regular course. The depression of temperature is analagous to that in certain cases of meningitis, and is probably due to some important derangement of the thermic centers. Liebermeister thinks the condition is one of the consequences of the previously high temperature, and he calls it irritation of the brain, because in some cases no coarse anatomical changes could be found.

III.—*Mania Transitoria.*

The term mania transitoria is used to signify those cases in which persons of sound mind become subject to an acute attack of maniacal nature, which lasts only a certain length of time, and disappears completely after a while. During the attack there is wild delirium with hallucinations. The patient screams, laughs in a boisterous manner, speaks incoherently, or is aimlessly and restlessly running about. Sometimes he is aggressive, sometimes there is a pronounced tendency to destroy every thing that comes in his way; he rages against living and inanimate objects, against other persons and against himself; murder, suicide, and mutilation of his own body are then of frequent occurrence. The principal feature of the attack is sometimes that of exaltation and self-consciousness. The patient destroys everything from sheer wantonness. More frequently the principal feature is one of depression. The patient believes himself harmed or persecuted by others, he offers resistance, he destroys in order to defend himself or to escape from his pursuers. In still other cases no motive for the actions can be discovered—it is aimless, senseless madness. During the attack the face is flushed, the eyes are flashing or staring; there is congestion of the conjunctivæ and accelerated heart's action. In the course of the attack considerable remission and exacerbations may alternate. In some cases the attack may cease after a few hours; in others it may last for several days; sometimes it will result in sound, deep sleep, from which the individual awakes in a normal or approximately normal mental condition, having sometimes not the least remembrance of his actions or his condition during the attack—sometimes only a very slight and indistinct one. The adoption of the term, "mania transitoria," as the name of an individual disease, is principally due to the works of Kraft and Ebing; it is only symptomatic, and nothing is claimed for it but that it is a convenient and significant name for conditions that are often actually met with.

The causes of this cerebral irritation, which finds its symptomatic expression in the disease under consideration, are often evident or may at least be discovered, if sought for with ordinary care. Some cases are evidently cases of unusually violent febrile delirium, such as may be found in diseases accompanied by a rapid rise of temperature, for instance, pneumonia, erysipelas, severe intermittent, the stage of invasion of the acute exanthemata. In the invasional stage of variola there are often such violent attacks of delirium in persons of the most gentle and quiet disposition, that they become dangerous to their relatives and friends. A very frequent cause of mania transitoria is cerebral irritation, due to excessive use of alcohol. It is well known that different individuals show a great difference as to their susceptibility to the effects of alcohol. Some persons are stimulated by it in a most agreeable and pleasant manner; they become of a friendly and amiable disposition. In others the reverse takes place; at the least degree of intoxication they exhibit a disposition to quarrels and acts of violence. There are certain individuals, in whom every excess in drinking brings on an acute attack of mania; and the liability to this will be increased, if to the action of alcohol is added that of strong emotion, for instance, if anger induces a man to drink. Certain persons who never have mania in consequence of simple drunkenness, may have a typical attack of "mania transitoria potatorum" (which is in all respects analogous to simple mania transitoria, and essentially different from delirium tremens), each time that they continue their excesses in drinking for a long time. Under these circumstances the attack is apt to last for several days. In habitual drunkards other causes of little importance are sometimes sufficient to call forth maniacal delirium. The usual behavior of drunkards, when they are to be anæsthetized, is a good example of mania transitoria. Other, especially narcotic poisons, for instance, belladonna, hyoscyamus, may call forth maniacal paroxysms. If there is a disposition to the disease, an attack may be brought on by brain irritation in consequence of overwork, loss of sleep, great excitement or strong emotions.

Mania is also of frequent occurrence in epileptic subjects, in which it assumes often a severe type. If the epileptic attack can be prevented, the maniacal attack will, as a rule, also be prevented. As a mania transitoria we must regard many cases of delirium traumaticum, either cases of very extensive destruction of tissue, or complicated fractures, or especially such cases in which sensory nerve fibres are irritated by the presence of a foreign body, the removal of which will mostly be followed by immediate cessation of the cerebral irritation.

As last we have to mention mania puerperalis. A peculiar disposition to the disease is presented by the neuropathic diathesis; another predisposing cause is anæmia. Repeatedly the statement has been made by experienced observers that puerperal mania is apt to follow severe loss of blood. Just the opposite statement was made in a report of the meeting of a society but a short time ago.(1) One of the speakers said he had been more successful in the treatment of puerperal eclampsia, when he used bloodletting, than when not using it; that he lost two cases, and just in these he had not used bleeding. To me it seems that the weight of authority is on the other side. Liebermeister asserts that in former years he sometimes got cases of mania puerperalis from a certain obstetrical clinic, in which bloodletting was customary at that time. Febrile delirium of a maniacal character also seems to be more frequent in anæmic subjects. On the other hand, we find the statement that an attack of mania may be the result of non-occurrence of the menstrual flow, or of cessation of habitual hæmorrhoidal loss of blood. Finally there are cases in which it is impossible to find either a direct or a predisposing cause. And it is with the report of such a case that I wish to close this article.

On August 27, 1888, I was called at about 8 p. m. to see a little girl, five years of age. She had been exposed to diphtheria; had been feverish, and the parents thought, somewhat delirious during the preceding night; also, feverish during the day, and now complained of pain in her throat. The mucous membrane was slightly inflamed, but no diphtheritic deposit could be discovered. There may have been a trace of it in a hidden corner, but I did not find it. The temperature under the tongue was 104 2°. Ordered five grains of benzoate of soda every hour. I do not wish to bring up the treatment of diphtheria this evening, but for those who may think that benzoate of soda is of no value at all, I wish to state that I have treated every case of diphtheria with this remedy, not solely, but principally, and have never had reason to regret this, as I never lost a case so treated.

August 28.—The child was troublesome during the night (slightly delirious, as the parents say), but in the morning the temperature is 101°. At 9 p. m. the temperature was 103.5°, and I now saw a diphtheritic growth. Ordered eight grains of the benzoate every hour, and benzoate powder to be applied locally by insufflation. To this were afterwards added local applications, first of extract of pinus canadensis, afterwards of ichthyol. There was not much constitutional disturbance; the child had some appetite and took sufficient food.

August 29.—Morning temperature, 101.5°, but in the evening it rose to 103°. Ten-grain doses of the benzoate were now

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1 The subject under consideration is mania from irritation of the brain with no anatomical lesions. Eclampsia is mentioned in so far as its treatment may be a predisposing cause to mania.

given, alternating with 1-50 of a grain of corrosive sublimate every hour.

August 30.—Morning temperature, 101.6°; at 1 p. m., 101.2°; she vomited once, and when the powder was applied, she threw up pieces of membrane. Ordered to give benzoate every hour and the sublimate every three hours. At 7 p. m., had been cheerful all day; taken sufficient nourishment; was now morose and sleepy; temperature, 102°.

August 31.—At 2 a. m. was called by the father, who stated that the patient awoke at half-past ten last night and was quite out of her mind; saw fearful objects; then would laugh, talk aloud and scream, point at imaginary objects, make faces; she spoke English, which she never did to her parents; used saucy language, such as she never had heard in the family; treated her mother with absolute contempt; knew neither of the parents; she would run about the room, take hold of whatever she could reach and throw it out of the window. Now and then there was twitching of some muscles of the face. When I arrived there was a slight remission; all the symptoms were present, but in a milder degree, and, though I could not get her to hold any thing else, she was prevailed upon to hold the thermometer in her mouth well closed for five minutes, and her temperature was 101.5°. I expected the remission would continue, and ordered only some doses of bromide of potash. At 8:30 a. m. the condition was about the same; the child had not rested at all; had not taken a drop of medicine, nor drink, nor food; there had been alternating remission and exacerbations. I now gave 7½ grains of chloral hydrate and 10 grains of bromide of potash per rectum, and ordered to give another dose, if in a certain time there would be no sleep. She then slept for half an hour, then awoke and was wildly delirious, as the parents say; three hours after the clysma she had a passage from the bowels; then another dose of chloral hydrate and bromide of potash was given. She soon fell asleep, slept soundly, perspiring freely.

September 1.—In the morning the parents aroused her; she took some food, immediately afterwards fell asleep; the same process was repeated during the day with the same effect; she slept till next morning, September 2, when her temperature was 98°, and she seemed perfectly well. She made a good recovery, although the case ran a very peculiar course to the end, but that does not belong here.

I regard this case as one of mania transitoria, but as to the cause of the irritation of the brain I have no clear idea. It was not due to febrile temperature. Was it due to diphtheritic poison, acting directly upon the brain—mania diphtheritica? Was it caused by alcohol? A certain amount of brandy had been given, but not enough, I think, to account for the symptoms. Was it a case of poisoning by corrosive sublimate, the latter acting upon the kidneys and producing uræmia? I do not know.

(For discussion see p. 693).

THE BACILLUS OF TETANUS.—The United States Marine Hospital Service issues in its bulletin for November 29 a translation from a paper by Dr. S. Kitosato, as contained in the *Zeitschrift für Hygiene*, November 7, 1889, on the bacillus of this disease, of which article the following are the conclusions:

1. Tetanus is an infectious disease caused by a specific bacillus.

2. The exciting cause of tetanus occurring in man, and of tetanus, when inoculated, is some bacillus which is identical with the "anærobic" bacillus first described by Nicolaier, and later confirmed by Rosenbach and others.

3. This bacillus appears both in the wound-pus of tetanic persons and of inoculated animals. It frequently produces spores in the pus, but if the pus is examined early it may often be seen as a small rod free from spores.

4. Pure cultures of these bacilli can be made from the pus of tetanic patients or animals, and inoculations from these cultures will produce tetanic symptoms in other animals.

5. The former statements, apparently contradictory, concerning the etiology of tetanus, and particularly regarding the appearance of the bacteria, are made clear by the fact that the investigations were made at different stages of the disease. The sooner patients or animals die the less likely are spores to be found in the pus. But the bacilli themselves are never wanting, and spore-forming bacilli can always be artificially cultured from tetanic pus that is free from spores.—*Boston Med. and Surg. Journal.*

CHOLECYSTOTOMY.

A Paper read before the Academy of Medicine,
November 25, 1889,

By Edwin Ricketts, M.D.,
Cincinnati,
Member of the British Gynecological Association,
British Medical Association, American
Medical Association, Cincinnati
Obstetrical Society, etc.

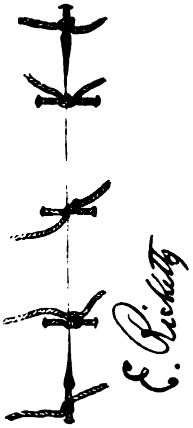
Mr. President and Gentlemen:

Until eleven years ago surgery of the gall bladder had not advanced a step. It was a surgical procedure of the past, notwithstanding its age of near two centuries. English surgeons condemned the operation, with the exception of Sam'l Sharp. On the continent (1757) Morand, Haller, Herlin, Bloch, and others sought to advance the labors in that direction.

The patient, Ellen Coleman, æt. about thirty, married, one child, a boy of seven years, was referred to me by Dr. Beebe, of this city, on the morning of October 25, 1889. The Doctor had diagnosed obstructed gall bladder, she giving a history of an occasional attack of hepatic colic for the past eight or nine years. The recognized remedies for these cases, such as phosphate of soda, large doses of olive oil, followed by free purging with Rochelle salts, had been resorted to without the desired results. The patient had been under Dr. Beebe's care for a week or ten days.

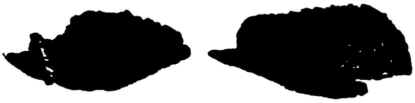
On examination I found the patient fairly nourished, with a prominence over the gall-bladder. Percussion over this distended portion gave much pain. Sclerotic jaundiced. Pulse 110, temperature 101°. Stools the consistency and color of putty, and offensive. She was well under the influence of morphia, which had been administered hypodermatically to relieve pain. I fully agreed with the diagnosis and that it was a case demanding prompt surgical interference.

She came into my house at noon, and was operated on at 3 p.m. of the same day. The incision, minus the "flub dub" accompaniment (chemical antiseptics) or "fuss and feathers" of the day, was made to the left of the median line and in line with the same over the distended gall bladder, one and one-half inches in length. Massage failing to empty the gall-bladder of its contents, I decided to puncture, drain, incise, sponge out, clean out, and, if possible, open up the cystic and common duct. After pressing the distended gall-bladder into the incision with my left index and middle fingers, and packing a hot, moist, small elephant-ear sponge on either side of the gall-bladder, I punctured with a small scalpel. The pressure from behind from my fingers forced through the small opening nearly eight ounces of a yellowish-brown watery fluid, fairly stinking. Much to my chagrin a receptacle was not at hand to catch this fluid, and as a result it was lost on the floor. The walls of the gall-bladder were thick in places, thinner in others, and of a dark color similar to the hue of the inside of a recently-twisted ovarian tumor. The end of my little finger filled the upper opening of the cystic duct. I tried to pass a No. 10 English bougie through the entire length of the cystic and common duct into the duodenum. I thought that I had succeeded, and so expressed myself.



The incision in the gall-bladder was one inch in length, and I stitched as follows, the armed needle starting in from the inner surface of the gall bladder and passing through outwards, gall-bladder wall peritoneum, muscle, and skin, as named. Then at the lower and upper angles of the wound I brought the armed needle through the tissue as above, tying all stitches as described in the above cut, putting in a short glass drainage-tube, three inches in length, between the stitch at the lower angle and the next one above. Through this tube the gall-bladder and cystic duct was drained by drawing it out by means of a syringe with a piece of rubber tubing four inches long—the size of a lead pencil—one end being slipped over the point of the syringe, after which the free end of the tubing was passed through the glass drainage-tube into that part of the gall-bladder or cystic duct containing fluid. Drawing the piston backward the syringe would be filled. Withdrawing the tube the fluid was forced out into a receptacle. A few procedures of this kind soon emptied the cysts of their contents. By the third day the bile was pouring out through the glass drainage-tube freely, soon saturating the cloths which we had to take it up. On the fourth day the glass tube was removed, and I tried to pass the point of a small silver probe through the cystic and common ducts into the duodenum. Much to my chagrin, it would not engage in the common duct.

With a six-ounce metal syringe I washed out the gall-bladder with warm water, after which I passed a hard-rubber Eustachian catheter as far into the cystic duct as possible, through which I forced warm water with the syringe, turning out a cast in two pieces. The following cut shows the size and shape.



Other washings and probings failed to open up the common duct. A rubber tube was substituted for the glass one. On November 1, 1889, the temperature touching 99°, I decided to probe thoroughly and use the gall scoop, which I did with perceptible effect, the temperature touching 103 8° and the pulse 105.

We did not renew hostilities on this line, but decided to wash out twice daily, adopting the expectant plan of treatment. She gradually improved in weight and strength, going to her home November 12, 1889, with a normal temperature and pulse of 99, the rubber tube having been removed four or five days previous to going out.

During her stay I examined the feces personally, and could not find any calculi. In one of the discharges from the bowel I did find some gritty substances. The obstruction of the common duct, I think, is due to catarrhal inflammation. If the obstruction gives way in time permanently, well and good; if not, we have done the correct operation, and if the flow of bile through the fistulous opening continues, no harm will come from it.

I must here thank Mr. Claude Cochran, a student of the Medical College of Ohio, for the care and intelligent record kept of this case, and Mr. Nesbitt Benson for the drawings.

137 Broadway.

[For discussion see p. 689.]

OBSTETRICS AND GYNECOLOGY.

By E. S. McKee, M.D.,
Cincinnati.

Four Laparotomies before the class of the Medical College of Ohio, at the Good Samaritan Hospital, on four successive clinic days, is, according to the operator, Dr. Reamy, not equalled by any medical college in America. Of these four, one was for the removal of double intra-ligamentous cysts of the broad ligament, one for hæmatocele, one for pyosalpinx, and one for hydrosalpinx. The doctor is to be congratulated on his last 100 cases with only three deaths. The doctor is a great advocate of the drainage-tube, especially if there is a prospect of the secretion of much fluid by the peritoneum. He advises exact coaptation of the peritoneum, checking of all hemorrhage, and perfect drying of the peritoneal cavity of the abdomen. In washing out the abdominal cavity he is careful to elevate the shoulders so as to keep the water off of the diaphragm. He believes in perfect cleanliness. His hands he washes several times on the day of the operation in soap and warm water, and carefully cleans his nails while the hands are yet damp. He bathes his hands in bichloride or carbolic acid, and lastly in whisky. The instruments are carefully boiled and placed in a solution of carbolic acid, and in some instances just at the commencement of the operation the knife blade is passed through a gas jet. The abdomen is washed thoroughly and rubbed till it is red. The sponges are placed in a saturated solution of bicarbonate of soda and washed out several times in water which has been boiled. They are then passed through a clothes-wringer and placed in a bichloride solution, 1 : 1,000, and left there till the time of the operation. They are brought to the operating-room in alcohol, and are used three or four times before thrown away. He buys the Florida sponge.

Simplification of Cæsarean Section is an object to be attained, if not at the expense of security. Fritsch, of Breslau, in the *Centralblatt für Gynakologie*, xiii, 23, 1889, has, as he says, both on therapeutic grounds and to save time, always an object in capital operations, omitted the sero-serous suture of Sänger. He sutures now as was formerly the custom, by simply passing through the entire uterus wall. The needle is made to enter the peritoneal surface of the uterus about one centimetre from the edge of the wound, and has its exit always about 0.5 to 0.75 centimetres from the border of the wound. The decidua is enclosed in this suture. The sutures must be tied very securely, and not more than one centimetre apart. In two cases in which he operated in this manner the results were good. In one the sutures were of silk and sublimate catgut; in the other only the latter were used.

Courage and Caution in the Treatment of Abortion is a title which means very much. Just when to be brave, and just when to proceed with care, is a question which requires not only knowledge and experience, but conscience. Of all my recent readings on this subject, none have proven so valuable and so well repaid me as the article reviewing the subject during the past year by Dr. Theophilus Parvin in the *Annual of the Universal Medical Sciences* for 1889, and no one is more the embodiment of courage and conscience than this author. Ecouvillonage, so successfully advocated by Doléris in the treatment of incomplete abortion, has gained much in the eyes of the profession. Strict antiseptic precautions are observed throughout. Frey advocated electricity as a substitute for the curette in incomplete abortion. For the immediate removal of the retained secundines the faradic current is used, and the galvanic if they have been for some time retained. Dioviburnia, made by the Dios Chemical Co., in St. Louis, has given excellent results in my hands in those cases where conservative caution was necessary. In one case the patient made desperate attempts to bring on a miscarriage at the seventh and eighth months, and seemed about successful, but in both instances the dioviburnia in dessert-spoonful doses four times a day tided the patient over her trouble, and a fine boy was born at full term.

Pappilloma of the Female Bladder was the subject of a clinical lecture by Dr. C. D. Palmer at the Cincinnati Hospital recently. The patient was a young colored domestic, aged seventeen years, suffering from considerable pain, frequent micturition, incontinence of urine, some elevation of the pulse and temperature, and amenorrhœa. Urethra and bladder very sensitive, and great pain complained of on the introduction of the catheter, urine containing mucus contaminated with blood. The patient was put on the following treatment; Acidi boracici, dr. i.; tr. hyoscyami, oz. ss; infs. buchu, oz. iss; M. S., one teaspoonful every three hours. Conjoined manipulation found a tumor on the posterior vesical wall about the size of an almond. The above treatment was continued and the bladder washed out every other day with a saturated solution of boracic acid. The patient improved rapidly and was able to leave the hospital, the tumor having disappeared, about a month after her admission. The doctor had in mind to scrape out the tumor with the spoon if it had not yielded so promptly to treatment. The doctor had another case, in which he dilated the urethra with his uterine dilator until the smallest finger of the left hand, and then the index finger, could be freely introduced. The tumor was easily found, and with the finger-nail as a curette it was easily and thoroughly scraped off. Great relief was obtained, which, however, did not prove to be permanent. The symptoms gradually returned, and in less than one year were as bad as before. About one year after the first operation cystotomy was performed, an opening being made sufficiently large to freely admit the finger. On the posterior wall of the bladder, about the incision and extending forward to the urethra, were numerous small and soft friable projections. These were all broken down and thoroughly scraped with the finger-nail and then with the uterine curette. No attempt was made to close the fistulous opening, as it was desirable to give the bladder that complete rest only attained in this way. The bladder was washed out with hot boracic acid water solution once a day for a week. The patient got up and about promptly.

Intra-uterine Compression of the Aorta in Post-partum Hemorrhage is reported as done with ease and success by Dr. Hoyos in *Rev. de Ciencas Med.* He had nothing with him except a hypodermic syringe and some ergotine. With his hand in the cavity of the uterus clearing out the clots, he found that he felt the pulsations of the aorta with great distinctness. He endeavored to gain some temporary control of the hemorrhage by pressure on the abdominal aorta, which had been practiced by Sejournet and others. This was followed by an immediate stoppage of the gush of blood which had been welling up about his hand. While he does not think that aortic compression is always the best practice, yet, under the circumstances, with the patient *in extremis*, he thinks it a good method to save life till other means may be called into operation.

The Obstetric Clinic of the Medical College of Ohio, which is now under the efficient management of Dr. E. G. Zinke, is assuming proportions thought impossible in modest America. Dr. Zinke's predecessors worked with little success, but this year already thirteen patients have been delivered before the students, and a number of others are waiting. This is a very important clinic, and the most difficult of all for which to find material.

The Treatment of Uncontrollable Vomiting of Pregnancy by the method of Copeman is strongly advocated by Dr. Quevedo in *Progrès Gynecologie*. This method, which consists of the dilatation of the cervical canal by the finger, has in the practice of Dr. Quevedo given results which can scarcely be attained by other means, and that in a rapid manner and easily accomplished. Sponges free from septic matter may be used instead of the finger. This should be done after more conservative methods have failed, and the desired result not being attained, a miscarriage should be produced. At the present writing medication seems powerless to overcome the persistent vomiting of pregnancy.

Curetting for Dysmenorrhœa is recommended by P. Janousky in *Monatshefte für Praktisch. Dermatologie*. The curetting, which is made by a long sharp spoon, must be performed thoroughly and systematically. The patient is to remain in bed a week after the operation. The operation should not be attempted if para- or perimetritis is present, or without antiseptic precautions. The uterine cavity is subsequently washed out and an injection of chloride of iron is made.

VOMITING OF PREGNANCY TREATED WITH MENTHOL.—The most unpleasant symptom accompanying pregnancy is undoubtedly the vomiting which often occurs, and this is especially serious because our present knowledge of its therapy is most unsatisfactory, and, in many instances, the physician is at loss to know how to proceed. It is not unfrequent that all therapeutic measures fail and relief is only obtainable by the induction of abortion.

Guided by the fact that the trouble must be regarded as a reflex neurosis, and that, theoretically, drugs which would depress the reflex excitability should also act beneficially in this complication, Dr. Sigmund Gottschalk, of Berlin, has used menthol in this disease with marked success. He employed a solution containing fifteen grains of menthol in five and a half fluid drachms of alcohol and five fluid ounces of distilled water. Of this he gave a tablespoonful hourly. In a case so treated, and reported in the *Berliner klin. Wochenschrift*, October 9, 1889, the vomiting ceased after the third dose, although previously other remedies had been used unsuccessfully. The patient was able to retain food and subsequently made a rapid recovery. The drug was continued for three days, the dose being gradually decreased.

The use of menthol is continually widening and there seems to be good reason on purely theoretical grounds for expecting that the results obtained by Dr. Sigmund were not in the nature of a coincidence, but that they indicate a rational addition to the therapeusis of the vomiting of pregnancy.—*Medical and Surgical Reporter.*

PULSATILLA IN DYSMENORRHŒA AND OVARALGIA.—Dr. Charles Bovet states, in *Les nouveaux Remedes*, November 9, 1889, that he has successfully employed anemone pulsatilla in diseases of the uterus. He differs from other authors who ascribe the greatest activity to the tincture prepared from the dried plant, and states that he has found the latter preparation by no means as active as the alcoholic extract, made from plants gathered fresh in June, and composed of equal parts by weight of the plant and of 90 per cent alcohol. The glucoside obtained from the plant, and called anemonin, is less active than the extract. As regards the method of using the remedy: If the case is one of dysmenorrhœa, Bovet gives the patient, four days before the beginning of the expected period, four tablespoonfuls of a wine which contains about ten drops of the alcoholic extract of pulsatilla to the tablespoonful. As soon as menstruation begins the use of the drug is discontinued for three or four days and then resumed for three or four days in the dose employed at the beginning. Recovery from dysmenorrhœa is frequently observed after following this practice for two months. If chlorosis èxists along with dysmenorrhœa, Bovet gives chloride of manganese also, in doses of five-sixths of a grain to the tablespoonful of the wine of pulsatilla. In cases of ovaralgia, as the result of chronic infarct of the uterus or inflammation of the neighboring structures, the pulsatilla wine is given continuously, in moderate doses, until the pain completely disappears. Bovet states that complications are never observed in the course of treatment.

As to the dose of anemonin: It was given in doses of from five-sixths of a grain to one and one-half grains a day, and never in a larger dose than three grains. It is decidedly more uncertain in its action than the alcoholic extract, probably because changes in its constitution take place when it is kept a long time.—*Med. and Surgical Reporter.*

MOUTH WASHES. — Hygiene of the teeth is as important as that of other parts of the body; and prophylaxis in this direction will prevent decay as well as keep the teeth clean and the breath sweet. Monte, in the *Deutsche med. Wochenschrift*, October 31, 1889, gives the two following formulas for prophylactic mouth washes:

℞	Acidi borici,	gr. xxxviij.
	Aquæ destillatæ,	f ℥ vij.
	Tincturæ Myrrhæ,	♏ xxxxviij. M.
℞	Sodii salicyl,	gr. xxxxiij.
	Aquæ destillatæ,	f ℥ vij.
	Tincturæ Myrrhæ,	♏ xxxxviij. M.

Sig. Wash out the mouth several times daily with either of the above formulæ.

—*Med. and Surg. Reporter.*

OF the late Dr. Ellwood Wilson it is said that he personally delivered more than fourteen thousand women, and saw all the difficult cases among more than twenty thousand other cases. At one time he delivered nine cases within twenty-four hours.

DR. C. G. BULL, of Montreal, maintains that myopia is developed during early life because of uncorrected astigmatism, which leads to the habit of reading at too short a distance.

Society Reports.

ACADEMY OF MEDICINE.

OFFICIAL REPORT.

Meeting, November 25, 1889.

The President, WM. JUDKINS, M.D., in the Chair.

G. A. FACKLER, M.D., Secretary.

DR. EDWIN RICKETTS read a paper on

Cholecystotomy [see page 685.]

DISCUSSION.

DR. C. A. L. REED congratulated the essayist on the primary recovery of his patient. There are, outside of the gall-stone, cases of catarrh of the common duct, resulting in inspissation of bile in the duct and gall-bladder, and the formation of casts. The latter are the most difficult cases to treat. In ordinary cases of gall-stone, in which the viscus is filled more or less, or obstruction in the ducts by smaller stones, or at their orifice by a larger one, the management is easy. But when, as in the case reported, casts have been formed, extreme difficulty is experienced in securing an opening through the common duct. The speaker was not in a position to indulge in adverse criticism, or to claim that more than was could have been done to secure an opening.

He could understand from the elasticity of the duct why the probe seemed to indicate the discovery of a passage. Intra-peritoneal manipulation of the gall-ducts is necessary to make sure of the result. The case is not entirely over, but the prophecy of recovery is at hand. The stools are becoming yellow, and the common duct is manifestly reassuming its function. Should there be complete recovery of its patulency, the closure of the fistula is an easy matter.

DR. HALL remarked that the difficulty of opening up of common and optic ducts is great even in the hands of those who have made many operations for this purpose, and is not in all cases possible. He referred to a case operated upon by one of the best known surgeons. The operator felt certain that the probe had been passed. The patient recovered, yet a fistulous opening always remained, and the patient always had putty-colored stools.

Yet the patient was relieved of the distress occasioned by the distended gall-bladder, by the operation and the permanent fistula. Even if the duct is not pervious, the patient is relieved by an operation, and, with a fistulous opening, is able to survive and enjoy a comparatively comfortable existence at that. The speaker agreed with Dr. Reed that in the case reported there were evidences that an opening through the common duct had been secured, and that subsequent closure of the fistulous opening is an easy matter. It is best not to attempt to close it, however, until we are certain that the duct is patulous, for antecedent to the latter event, pressure of the accumulating bile will only break down the adhesions of the wounded edges. Another reason for postponing any operative interference upon these fistulous openings, is the fact that the most of them close in a few months without operative interference where the ducts are pervious, and it is always best to wait for nature to do so, or until we learn that that is impossible.

Dr. G. S. Mitchell recognized the difficulty, after opening the gall-bladder, of determing positively whether the duct is patulous. He recalled a case, in which the gall-bladder was enormously distended, and a quart of a tarry substance removed therefrom. Even a small probe failed to pass through the common duct, and the occlusion could not be overcome. A post-mortem examination showed, however, that the caliber of the duct was intact, and the probe could have been passed easily had it not been for pressure exercised upon it by a small malignant growth of the pancreas.

Dr. Reamy wished to make the following request: Since the common duct was not opened, since some bile is still being discharged, and since the time elapsed since the operation is so small, the operator might favor the Academy with a presentation of his patient six to nine months hence, after the bile is flowing physiologically, and the external wound is closed. It had not been stated whether the distention was so great or of so long standing as to cause inflammatory adhesions. It occurred to the speaker that such adhesions did not exist, and therefore the stitches were carried through the walls of the cyst and abdomen, thus preventing the escape of the contents into the peritoneal cavity. The criticism offered is that it was not proper to predict anything as to the future of the case. There is not a theory that will justify the assumption that the common duct is open or will be open.

About three years ago the speaker had under observation a case of distention of the gall-bladder, the pressure from which was so great after three months as to redden the overlying skin. Surgical interference was deferred until adhesions would form. The patient had had early attacks of hepatic colic; he was not greatly jaundiced, although tinging of the conjunctiva was marked.

Improvement took place and the patient went East. There he consulted Professor Flint, who wrote that the diagnosis was obscure, and inclined to the belief that there was obstruction of the gall-bladder—possibly malignant disease. In Philadelphia the patient consulted Dr. DaCosta, who claimed the trouble to be malignant; Dr. Pepper, who inclined to the belief that there was no obstruction of the gall-bladder but malignant disease most probable, and Dr. Agnew, who thought the obstruction due to gall-stone and many of them. Still, the difficulty has all disappeared completely, and since then the patient has been perfectly well. He has now a slight attack due to exposure during a trip to Alaska.

The speaker mentioned this case because it was not unlike a number of cases, which he could distinctly recall, and in which recovery took place without difficulty after a time. It is well enough, then, that unless symptoms are more pronounced, that a longer history be given, and evidences of real suffering be presented, delay be exercised until either spontaneous cure has taken place, or there are assurances that adhesions have taken place, which render an operation safer.

Dr. Ricketts was surprised that Dr. Reamy encouraged delay in these cases. The most serious cases are those in which there is but little distension. The gentleman surely would not urge non-interference in ovarian cysts until they would weigh thirty, forty, or fifty pounds.

Great distension of the gall-bladder is not necessary to give gravity. Cases have been reported in which there has been *no* perceptible distension, yet an exploratory incision disclosed fragile gall-bladder walls, with *slight distension*, stones in some cases, not in others.

Exploratory incisions yield as much fruit as it does in those obscure pelvic ailments. Dr. Reamy says he would not have operated on this case until he had been satisfied that the peritoneum had become adhered to the anterior surface of the gall-bladder. In reply he said that of the sixteen operations on the gall-bladder he had witnessed— Tait, Savage, Thornton and others operating—*he had never seen the condition of adhesion exist.* The stitching, his own device, as practiced in this case, fortifies the parts,—minus the loss of valuable time in *waiting for adhesions*, as Dr. Reamy advises.

While Mr. Thornton claims that extirpation of the gall-bladder is the coming operation, yet he would not extirpate save in those cases of fragile gall-bladder walls, now distended, easily torn, not being able to stitch the same to the peritoneum, and being satisfied *beyond a doubt* that the common duct could not be opened. In this case there was strong and redundant gall-bladder tissue after emptying, which caused him to proceed in the manner described, adopting the "expectant plan" of treatment, as to the opening in time, of the common duct. The pathological changes found justified the measures resorted to. It does not seem possible for the cystic and common ducts to be able to be so distorted where the common duct is so markedly pushed aside and downwards, as in this case. He did not wish to be understood as claiming that this patient had fully recovered, but that a decided improvement had in a short time taken place. The bowels are no longer constipated, and the mother and patient claim that the feces are approaching normal color and consistency. He hoped to present the case again for observation.

It is stated that the late Dr. Philippe Ricord was the possessor of more decorations than any other man in Europe. He was a native of Baltimore, Md., and born Dec. 20th, 1800. Scientifically he is noted for his clear differentiation of syphilis from gonorrhœa, and the hard from the soft chancre. Besides he was a man of cultivated mind and refined tastes, one of the recognized wits of Paris, and a man of strong religious convictions.

RENEWALS of subscriptions to the LANCET-CLINIC are now in order.

CINCINNATI MEDICAL SOCIETY.

OFFICIAL REPORT.

Meeting of October 8, 1889.

The President, JOS. EICHBERG, M.D., in the Chair.

EDWARD S. STEVENS, M.D., Secretary.

DR. EICHBERG reported a case of

Volvulus,

Reading the following report from the Cincinnati Hospital records:

Frank Fangman, æt. 28, German, laborer, single. Physique good. Twenty years in the city.

Family history: Father died of heart disease, mother died in confinement. Thinks his father had consumption.

September 22, 1889, admitted to E med. East. Was in the house for wounds inflicted by hot iron about ten years ago.

Pathological history: Had whooping-cough and typhoid fever when six years old; no malaria or rheumatism. Had gonorrhœa several times. Is a very moderate drinker of spirits.

Present history: Patient states that he was well until four days ago; ate some apples and after several hours had severe pains in the abdomen. Had some vomiting, and bowels were constipated. Since then he has had abdominal pains colicky in character, with loss of appetite, nausea and headache. Bowels have been obstinately constipated and have not moved, notwithstanding he has taken several doses of salts.

Present condition: Nervous system — sleeps fairly well; some vertigo and headache, pain in abdomen.

Respiratory system: No cough or expectoration, some dyspnœa upon exertion.

Circulatory system: Pulse 96, temperature 99°, no chills.

Digestive system: Appetite poor, has had no stool for four days, tongue moist and clean, vomits everything he takes into the stomach.

Urinary system: Micturition normal.

Urinalysis: Amber and cloudy, alkaline, 1018, albumen absent, no sugar, chlorides and phosphates diminished, sediment present, urine indican increased.

Physical examination: Patient is well developed and fairly nourished. Face somewhat cachectic and expression dull.

Eyes natural; pupils accommodate for light and distance.

Chest: Fairly developed, expansion equal, marked depressions above and below clavicles, apex beat normal in position. Palpation negative. Percussion over both apices; there is very slight dulness, otherwise normal. At right apex expiration is slightly prolonged, otherwise lungs normal. Heart normal.

Abdomen: Distended, especially in umbilical and hypogastric regions. Some tenderness on palpation and unusual resistance along the course of the colon. Along the course of the colon there is less marked tympanitis than elsewhere. Rectal injection.

Extremities negative.

Muscular system well developed.

September 23, a.m. Temperature normal; had small stool after injection; slept well; no appetite, and vomits everything he swallows. Water, when vomited, is of a brownish color and has a slightly fetid odor. Pain better and less tenderness. Another injection carried high into the bowels.

September 23, p.m. Pulse 116, temperature 98°. Regurgitates a watery brownish fetid substance. Pain in the abdomen not severe, but there is considerable distension.

September 24, a.m. Pulse 88, temperature 98° in the rectum. Calomel, gr. 1-12th, morph., gr. 1-6th, every hour. Has been vomiting stercoraceous matter at short intervals during the night. Pain in the abdomen at times severe. One very small stool. Abdomen distended and tender, especially over the right side.

September 24, 3:30 p.m. Pulse 96, temperature 98° in the rectum. Dr. Eichberg washed out the stomach and ordered (1) perfect rest in bed; (2) morphia, gr. ¼ every two hours, hypodermically; (3) calomel, gr. 1-12th, every hour; (4) milk (peptonized) ℥vi. and whisky, per rectum, every four hours. Some pain in the abdomen, but not much complained of. Patient seems to be somewhat stupid. A large quantity of stercoraceous matter was removed from the stomach. Morph., gr. 1-4th, at 3:30, 1-6th at 5:45, 1-6th at 8:00, 1-6th at 9:45, and 1-6th at 11:45.

September 24, 9:45 p.m. Pulse 84 and good, temperature 97° in the rectum. Patient is stupid, but inclined to complain of treatment; complains of no pain; does not retain milk enemas; sometimes vomits stercoraceous matter; quite thirsty. Respiration 16.

September 24, 10:20 p.m. Dr. Eichberg inflated the rectum by reversing Dieulafoy's aspirator and introducing a soft rubber catheter. The sigmoid flexure was fully distended, and each stroke of the piston was readily perceived by the hand placed over the abdomen; there was also perceived gurgling over part of the right side of the abdomen. Patient had few hiccoughs; partial priapism; tongue moist. Ordered Seltzer water.

September 25, 2 a.m. Pulse 84. Bowel inflated as above described; has been sleeping well; complains of thirst. Morph., gr. 1-6th. Vomited stercoraceous fluid.

September 25, 7:30 a.m. Pulse 80 and very weak, temperature 95° in rectum and axilla, respiration 10. Has vomited some of the same matter. Tongue pale and moist; pupils firmly contracted; complains of no abdominal pain. Morph., gr. 1-6th. Did not retain nutritive enema even after it was reduced to ℥iii. of peptonized milk. Large rectal injection of about four quarts of warm water; the water returned almost clear. Dulness on right side of the abdomen unchanged; priapism continues.

September 25, 9 a.m. Pulse 80 and weaker. Very little change in condition, except for the worse. Dr. Ransohoff called in consultation. It was decided to perform laparotomy, and the patient, after the stomach was washed out, was transferred to Dr. Ransohoff's service, D surgical, and the abdomen opened.

As to the presence of indican in the urine, it was found upon comparison with normal urine that there was almost double the amount. This is one of the indications of a high seat of obstruction of the bowels, but as contradictory to this there was felt the distended sigmoid, and the distinct impulse upon forcing down the piston of the reversed aspirator. During the operation the patient almost died before the first incision was made. Upon opening the abdomen the small intestine was found to be shut off by a twisting of the jejunum. There was no peritonitis, but there was marked impairment of the muscular coat of the intestine, as was evidenced by the failure of gas to pass to other parts of the bowel when the volvulus was relieved.

The case is of interest because of the sudden decline in the circulation, and because the injections of air and water were of no effect.

DISCUSSION.

Dr. Carson: How long did the man live after the beginning of the attack?

Dr. Eichberg: He came into the Hospital on the 22d of September, four days after the first attack of colic, and died on the 25th. The finger in the rectum could not feel anything. He lived seven days. The pulse and respiration were good up to twelve hours before death. Prof. Schede has said that he would decline to operate until failure in the circulation became an alarming symptom.

Dr. Stanton: Did he state what form of treatment he would employ?

Dr. Eichberg: Opium, with enemata of water or air.

Dr. Dandridge had tried several times to give patients the benefit of surgical interference, but so far with bad results. Several years ago, at Madisonville, he had succeeded in giving sufficient relief to permit the patient to have a stool. In this case it was necessary to tear apart adhesions that had formed, and the patient did not long survive the operation.

Dr. E. S. Ricketts spoke of the case reported as being unique, as in two-thirds of all these cases the trouble is at the sigmoid. They generally begin with large doses of cathartics. The time for the incision was when vomiting came on. He spoke of a case he had himself had under his care. The patient was given strychnine and continued for two weeks. There was vomiting, and he advised an exploratory incision. He went over the whole tract. There was a localized peritonitis, which disappeared after cleansing and draining the cavity. Upon the left ovary was a small tumor, which was removed. The termination of this case was exceedingly happy. The cause is often a long omentum. He could not agree with speakers as to the advisability of trusting to medication, but advised opening in all cases of doubt.

Dr. Dandridge did not wish to be understood as deprecating operative interference. He, however, regarded it as a very serious matter to go over the whole tract of the intestines. By Nelaton's operation of opening and sewing to the wound the first part of the intestine that presented many would be saved who would otherwise die of shock.

Dr. Ricketts spoke further of his operating in the case of a lady, the subject of syphilitic stricture of the sigmoid. He did a lumboid colotomy. The temperature never went above 100°, and he was agreeably disappointed at the small amount of shock. Reaction was very prompt. The patient was a morphine eater, who consumed eight grains per diem. He was soon able to cut down the morphine, and by rest and the iodide of potash the stricture disappeared.

Meeting of October 15, 1889.

The President, Jos. Eichberg, M.D.,
in the Chair.

Edward S. Stevens, M.D., Secretary.

Dr. F. C. Gores read a paper entitled

Irritation of the Brain (see p. 679).

DISCUSSION.

Dr. Stanton said that the subject was important for the reason that there are so many conditions which may give rise to it. Conditions of inflammation and exhaustive diseases. Conditions which are opposite to each other. A recognition of the different states is important because of the bearing such knowledge has upon the treatment of the case. The symptoms of cerebral irritation in children are so like those of cerebral inflammation, yet in the former opium would act like a charm and in the latter it should not be used at all. In regard to the question of puerperal eclampsia, he doubted if it resulted from the bleeding. It is more apt to result from the preceding anæmia. He had had a number of cases where he knew the whole history of the case, and many presented symptoms of albuminuria. Many are due to the anæmia of lactation. One case he had attended three times where after a month of lactation mania came on, from which recovery was complete when lactation was discontinued and the anæmia recovered from.

Dr. Eichberg said that the paper had suggested several things to him, particularly in the references to the toxic influence of lead. At the post-mortem examinations nothing but œdema is to be found, and yet the symptoms are those of the gravest variety. They are not amenable to treatment. He had seen not less than fifteen cases, and they had all terminated fatally. Cases of cerebral irritation from high temperature are happily becoming less frequent, for we have the thermometer to guide us in the use of antipyretics. At the Cincinnati Hospital it is the rule for the interne to give an antipyrectic if the temperature goes above 100°. Irritation of the brain is frequently reflex, as in the dietetic errors of children.

Diphtheria and Follicular Tonsillitis.

Dr. C. E. Caldwell asked if there was not a possible relation between diphtheria and follicular tonsillitis. Within a few days he had seen a typical case of diphtheria. The paralysis he had never seen so complete. It was an undoubted case of diphtheria. Other children in the family were sent to the country and had follicular tonsillitis. The mother of a nursing child had follicular tonsillitis, the babe was not sick at all, and two children in the family had the typical exudation.

Dr. Byron Stanton said that many cases of so-called follicular tonsillitis are diphtheria of the tonsils. When it occurs in this situation it is known to be mild.

Dr. Caldwell said that he himself could not attend a case of diphtheria without suffering with follicular tonsillitis, and he did not believe that he would have several attacks of diphtheria in one winter. He did not see how the two could be confused. With follicular tonsillitis there is generally a little bleeding. When the secretion becomes fibrinous it may become a suitable nidus for the development of the diphtheritic poison. He spoke of a case in which a boy had a typical tonsillitis and was treated for it several days. After three or four days there was a change, and the symptoms of diphtheria became manifest. Subsequently he died of paralysis.

Dr. Kloman, of Baltimore, says that previous to 1881 there had been but one death from illuminating gas in that city. On that date the so-called water gas was introduced, and during the following eight years there have been fifty-one deaths from this form of poisoning.

The inhalation of the vapor of amylene is said to induce the condition of somnambulism.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON ORTHOPÆDIC SURGERY.

Stated Meeting, *October* 18, 1889.

OFFICIAL REPORT.

The President, A. B. Judson, M.D.,
in the Chair.

Rachitic Pseudo-Paralysis.

The paper of the evening was read by **Dr. H. W. Berg**, who stated that in this affection the rickety child from two to five years old is unable to walk, and in some cases he cannot stand or even sit. The disability is not the result of nervous lesion, but rather the result of muscular weakness—pain in the muscles and in the bones at the points of muscular attachment, flaccidity of the ligaments, and softness of the bony levers. Such a child wishes to be let alone; he instinctively prefers to keep quiet. This condition is to be distinguished from infantile paralysis; not so readily, however, from post-diphtheritic paralysis where the differential diagnosis will rest on the preceding occurrence of diphtheria, the recent origin of the paralysis, and, above all, on the difficulty of swallowing and speaking dependent on involvement of naso-pharyngeal and laryngeal muscles. Spastic paralysis, even when mild, has an exalted muscular activity which serves to distinguish it from rachitic pseudo-paralysis; and the paraplegia of Pott's disease cannot be mistaken if the kyphosis is obvious. The prognosis is uniformly favorable. These are the cases which give such good results after indiscriminate circumcision. The object of treatment should be to counteract the effect of rachitic malnutrition. These children should have a great deal of milk; cod-liver oil should be given unmixed; and phosphorus in the following prescription:

℞	Phosphori, . .	gr. j.
	Alcohol, Absolut., .	♏ccl.
	Spt. Menth. Pip., .	♏x.
	Glycerinæ, . .	℥ij. M.

Sig.—Six minims t. i. d., to be increased one drop weekly until ten drops are given.

Dr. W. L. Carr had seen a number of cases in which a striking lack of muscular power was symptomatic of rickets, although bone changes were not obvious. A number of these children had been fed at the table or on patented foods. Proper attention to diet soon brings about a restoration of muscular power without tonics.

Dr. R. J. Devlin recalled well-marked cases of this affection in children who had been exclusively fed on milk from a healthy mother.

Nervous Symptoms Produced by Phimosis.

Dr. T. A. Holgate said that in his experience with non-rickety children, the relief of preputial irritation by discriminating operative interference had removed serious nervous troubles. In one case, which he had presented to the Academy, inability to walk or stand had been relieved in this way in a child who was entirely free from evidences of rickets.

Dr. R. H. Sayre related a similar case of a boy, who, from some central lesion, had not walked for some years. After partial circumcision he could walk with the aid of two canes. A trouble of twelve years' standing had thus been relieved in six weeks.

Dr. Berg closed the discussion. He agreed with Dr. Carr in thinking that rachitic inability to walk is sometimes present without the usual rachitic deformities. He recognized the fact that urinary troubles occur as the result of contracted prepuce, but he had never seen a case of lesion of the nervous centers cured by circumcision. He recalled a case of difficult micturition and inability to walk in a rickety child whose phimosis was not relieved, because the operatian was refused. The difficulty in micturition persisted, but the child walked within eight weeks after being put upon proper diet.

Excision of the Hip-Joint.

Dr. R. H. Sayre presented a little boy on whom Dr. L. H. Sayre had operated by excision of the hip-joint. About a year ago the patient had presented himself with the hip very badly deformed from long-standing disease. The thigh was flexed on the trunk at a right angle, and abducted. A deep abscess was opened behind the trochanter, and the acetabulum and femoral head were then found to be badly eroded. The femur was divided above the lesser trochanter, at right angles with the axis of the shaft, and the deformity was thus reduced by excision instead of by simple tenotomy, which had been proposed at first. The wound was stuffed with iodoform gauze, and after two months of the wire cuirass, a long traction splint was applied, and the boy took a long journey to his home. At the present time there is no abduction, and but a trace of flexion, with some motion in the joint.

Treatment of Abscesses.

Dr. John Ridlon asked whether an operation would have been advised for the abscess alone. He had found that many abscesses are certain to disappear when the hip is properly treated mechanically.

Dr. Sayre said that, as the abscess was causing but little disturbance, he would have postponed operating on it if the child could have been kept under observation.

Dr. Judson thought that opening an abscess, if done at all, should, as a rule, be followed by excision, as in the case related by Dr. Sayre, on the ground that the presence of diseased bone is a greater evil than the presence of pus. He had seen no bad results follow letting the abscesses alone.

Dr. A. M. Phelps said that there were some cases of abscess which he would probably not open at once, but he believed the operation perfectly harmless, and desired to speak emphatically against the opinion that it is a dreadful and a dangerous thing to open these abscesses.

Dr. H. L. Taylor thought that if rest and protection are secured for the joint, the occurrence of abscesses is not of serious import. The aspirator had failed in his hands apparently because it leaves shreds of necrotic tissue which prevent the abscess from closing. It seems wise in most cases to open freely, clean out easily removable débris, and close the wound. If sinuses remain, injections with a saturated solution of iodoform in ether will sometimes cause them to close.

Dr. L. A. Sayre said that on the principle that an empty house is better than a bad tenant, he always evacuates an abscess as soon as found, and by doing this antiseptically, and securing thorough drainage, there is no danger of bad results.

Dr. R. T. Morris said his usual custom is to open these abscesses at once, washing out with peroxide of hydrogen, removing débris, and establishing drainage. He related a recent case in which this procedure, followed by traction in the line of the deformity, had secured a good result. He had recently performed excision in another case in which disease of the acetabulum and femur had been produced by the application by the physician in attendance of traction in a straight line, according to Thomas' method. In excising the hip, he usually makes a section through the great trochanter in such a way as to allow the lesser trochanter to go into the acetabulum and so prevent the formation of a flail joint.

Thomas' Splint.

Dr. Ridlon did not think Thomas, of Liverpool, made traction in any line.

Dr. Phelps said that Mr. Thomas would treat a case, when the leg is flexed at right angles, by lashing the patient to the splint and then with his wrench bending the splint down as nearly as possible to a straight line. That is a form of traction which produces great intra-articular pressure, and would, if continued for any length of time, produce destruction of the joint.

Dr. Ridlon said that he had used Thomas' hip splint in some twelve or fifteen cases with great satisfaction. He found it cheap and easily applied. It had not caused destruction of tissue, but, on the contrary, had relieved symptoms and promoted recovery.

Dr. L. A. Sayre said it seemed as if the profession were determined to misunderstand him, for he had endeavored for years past to make clear what he meant by traction in the line of the deformed limb: it is to make traction in such a way as to separate slightly the bone from the base of the acetabulum, and so prevent pressure, gradually changing the line of traction until the limb is brought parallel with the other limb, and then apply the splint; whereas, if one employed leverage as Thomas does, this pressure in the joint is only increased. Not until the limb is in proper position can the splint be applied to advantage. One objection to Thomas' splint is that there is no traction for overcoming muscular rigidity, and, hence, it seems to be fixation only, and as such does not compare in point of efficiency with a properly applied plaster-of-Paris splint; for here the weight of the limb will produce some traction, and the plaster-of-Paris gives the necessary fixation. Another objection is that the patient wearing Thomas' splint cannot sit down, whereas with a properly applied splint they can sit down with great comfort.

The Question of Excision.

Dr. R. H. Sayre said that in the case presented the original intention had been simply to open and drain the abscess; but the diseased condition of the bones necessitated excision. As regards the conditions under which he would advise excision, if the leg were straight and the abscess causing but little disturbance, he would postpone the operation, provided the patient could be kept under observation; but if the latter could not be secured, he would be disposed to remove whatever disease already existed rather than allow the case to go from under observation with the disease ready to extend at any time.

Dr. Berg thought the good condition of the patient in the present case justified operative procedure for the correction of deformity.

Dr. Taylor thought that excision might be required in neglected cases, of which there probably always will be a considerable number; but the operation should be looked upon rather as treatment of the results of neglect than as treatment for hip disease.

Dr. Phelps practiced excision by an open wound, leaving the periosteum to reproduce bone. The German surgeons remove the periosteum and capsule and try to secure union by the first intention. Their results are shortening, flail joints, and relapses in a large per cent. of cases. He related two recent cases of excision in patients thirty-four and twenty-three years of age. In these cases the femoral head was destroyed and the acetabulum extensively diseased, a condition in which removal of the disease is the most rational treatment. In one of the cases the head was found separate from the shaft. He had frequently found this condition, and believed that the head lying loose in the joint cavity is to be considered as a foreign body. It is better to remove it than to leave it to undergo decomposition and lead to septicæmia and amyloid disease. A more useful limb is left if the exsection includes the trochanter. In general, he thought excision under the age of ten is a calamity. In the case presented, however, he thought the result was good, as extreme deformity had been corrected.

Dr. Judson thought that in excision

we have no certainty of removing, together with the diseased bone, those portions which contain latent foci. He had found no method of determining whether the focus which has burst into inflammation is the only outbreak to be feared, or whether it is to be followed by others. In some patients a single abscess closes the morbid process, in others, one abscess follows another, showing that osteitis is lighted up successively in the neck, the head, the shaft, and the bones of the pelvis. An excision may fortunately remove all that is diseased, with a good immediate result; or it may leave dormant foci which come into activity one after another, and lead to a tedious and unfavorable result. Ultimate good results are obtained in these difficult cases by management with the hip splint, and without excision.

Medico-Legal Problems of Inebriety.—Dr. T. D. Crothers (*Journal of Inebriety*) concludes a paper thus:

1st. In all cases of inebriate criminals, there is literally mental defect, and more or less incapacity to reason sanely or control their acts. An inebriate who does criminal acts cannot be of sound mind. No criminal who is an inebriate is sane, and no inebriate is fully sane, and no criminal can be of sound mind long.

2d. The question for the medical witness to decide is: How far was the prisoner conscious of the nature of his acts; and how did he have control over his acts, in a certain condition when crime was committed?

3d. In a case where crime was committed under the influence of alcohol, the law asks: What was the prisoner's mental condition at this time? and insists on fixing the boundaries of responsibility and accountability. The law demands that science should go into this penumbra region of sanity and insanity, and the point where vice and disease join, and where human justice should punish, and where it should excuse as irresponsible.

4th. The scientific man demands that this question of mental condition at the time of the crime should be studied independently of all theories or legal rulings, seeking the facts and their meaning, with no hesitation as to effects of such conclusions on the court or public. The scientific man refuses to draw boundary lines of disease and accountability, but insists on minute study and general conclusions based on the probable facts.

5th. If the facts in the history of the prisoner and the crime indicate a degree of unconsciousness of the act or its consequences, also an inability of control of his acts and conduct, the irresponsibility of the prisoner should be assumed as a fact far more likely to be true, than his sanity and responsibility.

6th. When the fact of the inebriety of the prisoner is clearly established, his sanity and responsibility in a given case must be proven beyond all question or possible doubt, proven from the circumstances and conditions of the life and crime. The fact of the presence of inebriety reverses the order; his insanity must be assumed and his sanity proven.

7th. Finally, in all these cases the medical witness is called to determine the physiological, pathological, and psychological facts and their meaning. The application of these facts must be made by the court, jury, and law.

The medical expert and student of to-day must go beyond the theories of yesterday, or the facts on which yesterday's views were based. A newer, larger, field opens up to-day, and the facts are more numerous, and indicate a clearer, wider view to-morrow.

The late Dr. Ricord was an eminent physician with a big heart, but without business capacity. He had royal favors, an enormous income, yet he was ever falling in debt, so that he was several times sold out and even sent to prison.

The Norwegians are the longest-lived people in the world, there being a very slight mortality among children in that microbe-free land.

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A fee of $5.00 will be charged for such examinations. Leonard Freeman, M.D.,
J. C. Oliver, M.D.,
Otis L. Cameron, M.D.,
Oliver P. Holt, M.D.,
Curators and Microscopists.
Are prepared to make examinations of river water, milk, etc., for the typhoid bacilli.

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

TERMS, $3.50 PER ANNUM IN ADVANCE.

☞All letters and communications should be addressed to, and all checks, drafts and money orders made payable to
DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, December 21, 1889.

The Week.

THE MEDICAL DEPARTMENT OF THE UNITED STATES NAVY.

This part of the Government service is always short of officers, which is no doubt due to the rigidity of the examinations. This is a commendatory feature, and speaks well for the heads of the department. The naval service is of a peculiarly different character from that of the military on land. From time to time the officers are brought in contact with those of other nations, and it is and should be a laudable ambition to present on such occasions the very topmost representatives of our profession—men the peers and superiors of any of the world. This has been a bright spot in our past national history, and must not in the future be allowed to become dimned by the sending abroad of any inferior material, officially wearing the insignia of rank of surgeon in the navy.

The following questions were given by the U. S. Naval Examining Board to a recent candidate for examination for promotion to the grade of Past Assistant Surgeon U.S.N., November 11, 1889:

1. Physical examination.
2. Letter to the Board, stating points of interest occurring during career in service (note-book, etc., of cruise).
3. Thesis: Anæsthetics.
4. Duties of naval medical officers: 1st, On ship going into commission; 2d, going out of commission. What records are kept during the cruise?
5. Describe the blood-vessels of the brain, mentioning all the peculiarities of the arteries that modify the circulation in that organ.
6. Describe in detail the tubuli uriniferi from origin to termination in the pelvis of the kidney. Describe their arrangements into pyramids.
7. Give the origin, course, and distribution of the internal and external respiratory nerves. Also, anatomical relations and sympathetic connections of the former.
8. Describe the ventricles of the brain.
9. Describe the optic nerve. Superficial and deep origins. Decussation of fibres. Describe the retina.
10. Action and classification of cathartics, giving the classes into which they are divided.
11. Describe source, alkaloids, preparations, and action on the circulation of digitalis, convallaria, and strophanthus; also dangers attending the use of the first named.
12. Describe the nature and sources of opium, its alkaloids, physiological actions, treatment of poisoning, and tests.
13. Describe the chief preparations of iron, their doses and incompatibles and physiological actions.
14. Describe the signs of death. Define the terms "infanticide" and "born alive" in their legal sense.
15. Describe in detail a medico-legal post-mortem examination.
16. Describe the symptoms and treatment in cases of arsenical poisoning. Methods of detecting the poison after death.
17. Give the causes and pathology of cerebral thrombosis and embolism, and state the peculiarities in the results of obstruction of the so-called terminal arteries of the brain.
18. What are the rational and physical symptoms of stenosis and insufficiency of the aortic valves and orifice?
19. What are the symptoms and physical signs of acute pleurisy, including the two varieties, viz.: the dry form and pleurisy with effusion?

20. What are the different forms of tænia that infest the human intestine? Designate the most common one. Give its life history and treatment.

21. Vaccination: Give the history of the discovery of the practice. Describe the course of a typical vaccinia.

22. Describe the eruption of variola, the symptoms and course of the disease. Explain the initial and secondary fevers that usually accompany the graver forms.

23. What procedures would you adopt for the treatment of a case of gunshot wound of the abdomen? 1st. At the place of occurrence, when the patient is first seen. 2d. After removal to the hospital or residence.

24. Describe the different dislocations that occur at the hip-joint. Give diagnostic signs and a method for reduction for each form described.

25. What procedures and apparatus would you adopt for the treatment of a compound fracture of both bones of the leg?

26. In operating for stone in the bladder, what constitutions in the case would govern your choice between (1st) lithotomy and lithotrity; (2d) if a cutting operation is to be performed, between a perineal and a supra-pubic lithotomy?

27. Define aneurism. State the predisposing and exciting causes of the affection, and describe the distinctions between the true and false aneurism, and between varicose aneurism and aneurismal varix.

28. Organic stricture of the urethra: Give causes and pathology, diagnosis and more common locations.

29. Describe the clinical features and management of the first stage of labor.

30. Laceration of the perineum during labor: Causes, prevention, and immediate treatment.

31. Post-partum hemorrhage: Causes and treatment.

32. Describe the aneroid barometer and explain its physical principles.

33. Describe magnetism. Enumerate the principal magnets in the order of their magnetic power. What is the difference between natural and artificial magnets?

34. Define the following units used in physics: Unit of heat, unit of weight, unit of length, area, and volume, unit of work, unit of horse-power.

35. What are the compounds of zinc used in medicine? Uses, tests, and antidotes.

36. What are the incompatibles of the soluble salts of barium, chlorine, silver, antimony, and lead?

37. Describe the different soaps, their manufacture, their relation to fat and glycerine. Explain their chemical action in cleansing the skin.

38. What are the functions of the sympathetic nerve?

39. What are the functions of the liver?

40. What are the functions of the skin?

41. How is the surplus nitrogenous food eliminated?

42. Enumerate six of the principal disinfectants, including germicides, explain their actions, and give the cases in which each is indicated.

43. What are the chief sources of water supply? The advantages and disadvantages of each?

44. Practical microscopy: Optics, lenses, theories, kinds of microscopes, parts, etc. Examination of specimens (10); written report.

45. Practical analysis of urine. Explanations of chemical changes on addition of the various reagents. Written report on analysis of two specimens.

46. Describe the different parts of a stamen, modes of insertion, using the terms commonly employed for this purpose. Define the terms monadelphous, diadelphous, triadelphous, polydelphous, and syngenesious.

47. What are the non-sexual modes of reproduction of animal bodies? Give an illustration of each.

48. Translation from French Le Medecine par a de Chambre (Hippocrates' Oath).

49. Who was the discoverer of the circulation of the blood? When and where did he live? State any particulars of his life that you may know.

50. Practical work: Bandaging of fractures, etc. Recognition of various medicinal plants.

51. Practical work: Two cases in the hospital. Differential diagnosis, course, duration, termination. Write prescriptions in Latin (metric system) complete; no abbreviations used.

52. Practical work on cadaver: Stab wound penetrating intestine; treatment. Ligations. Amputations.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending Dec. 14, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	...	..	2	..	...	..	...
2nd	1	..	...	..	...	..	1	..	...	..	...
3rd	...	..	...	..	...	..	2	..	...	..	...
4th	1	..	1	..	...	..	1	..	...	..	...
5th	2	..	...	..	2	..	...	..	...	..	...
6th	...	..	...	..	...	..	...	..	...	..	...
7th	...	..	...	..	...	..	2	..	...	..	..
8th	...	..	1	..	...	..	...	..	...	..	...
9th	...	..	1	..	...	..	...	..	...	..	...
10th	...	..	...	..	4	..	1	..	...	..	...
11th	...	..	...	..	...	..	1	1	...	..	...
12th	3	..	...	..	5	..	1	1	...	..	1
13th	...	..	...	..	...	..	1	2	...	..	1
14th	...	..	...	..	2	..	...	..	...	..	1
15th	...	..	1	..	...	..	1	..	...	..	...
16th	...	..	...	..	...	..	1	..	...	..	...
17th	...	..	...	..	...	..	2	..	...	..	...
18th	1	..	...	..	...	..	1	..	...	..	...
19th	2	..	...	..	...	..	1	..	...	..	...
20th	1	..	...	..	...	..	2	..	...	..	...
21st	...	..	...	..	...	..	5	..	...	..	...
22nd	...	..	...	..	...	..	1	..	...	..	...
23rd	...	..	...	..	...	..	1	..	...	1	...
24th	...	..	...	..	2	..	2	1	...	..	...
25th	1	..	...	..	...	..	.	..	...	..	...
26th	1	..	...	..	...	..	...	..	...	..	...
27th	...	..	...	..	...	..	2	..	...	..	...
28th	...	..	2	.	...	..	9	1	...	..	...
29th	...	..	...	..	...	..	3	..	...	..	...
30th	...	..	...	..	...	..	4	..	...	..	...
Cin. Hosp.	..	..	...	..	...	..	...	..	...	..	...
Betts-street Hospital	...	..	...	..	...	..	...	..	...	..	...
Marine H..	...	..	...	..	...	..	...	..	...	..	...
Totals	13	..	6	..	15	..	45	6	...	1	3
Last week	16	2	13	..	...	..	30	6	...	1	5

The following is the mortality report for the week ending December 14, 1889.

Croup	3
Cerebro-spinal Meningitis	2
Diphtheria	6
Entero-Colitis	2
Typhoid Fever	1
Other Zymotic Diseases	2—16
Cancer	1
Phthisis Pulmonalis	13
Other Constitutional Diseases	5—19
Apoplexy	4
Bright's Disease	1
Bronchitis	8
Convulsions	6
Heart Disease	4
Liver Disease	2
Pneumonia	12
Other Local Diseases	19—56
Premature Birth	4
Other Developmental Diseases	6—10
Accidental	6
Homicidal	1
Suicidal	2— 9
Deaths from all Causes	110
Annual death rate per 1000	17.60
Deaths for corresponding week in 1888	100
Deaths for corresponding week in 1887	135

BYRON STANTON, M. D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 22 observers for the week ending December 13, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Bronchitis, acute	12	41
Tonsillitis	11	22
Diarrhœa	8	15
Rheumatism (acute)	7	10
Pneumonia	7	8
Typhoid Fever	6	9
Intermittent Fever	5	9
Diphtheria	5	6
Measles	4	42
Scarlet Fever	3	5
Erysipelas	3	3
Pleurisy	3	3
Remittent Fever	2	2
Consumption (Pul.)	2	2
Typho-Mal. Fever	2	2
Cholera Morbus	2	2
Whooping Cough	1	3
Dysentery	1	1
Croup, membranous	0	0
Cholera Infantum	0	0
Puerperal Fever	0	0
Cerebro-Spin. Men.	0	0

REMARKS.

Reports of infectious diseases from 63 health officers and observers:

Diphtheria reported by health officers: Cincinnati, 6 deaths; Cleveland, 20 cases, 7 deaths; Toledo, 15 cases, 3 deaths; Dayton, 8 cases, 2 deaths; Akron, 1 case; Springfield, 9 cases, 1 death; Youngstown, 2 cases; Lancaster, 1 case; Mansfield, 1 case; Crestline, 1 case; Ravenna, 3 cases, Savannah, 4 cases; Wadsworth, 1 death; Bloomville, 7 cases, 1 death; Millersburg, 1 case; Glenville, 1 case; Defiance, 1 case; Fostoria, 1 death; Delphos, 3 cases, 1 death; Middletown, 2 cases; Wellston, 1 case, 1 death. Reported by observers at New Vienna, Rocky River, Yorkshire, Maineville, and Summerfield.

Scarlet Fever reported by health officers: Toledo, 4 cases; Cleveland, 35 cases, 3 deaths; Dayton, 1 case; Akron, 2 cases; Youngstown, 4 cases, 1 death; Delphos, 1 case; Springfield, 1 case; Glenville, 2 cases; Defiance, 2 cases; Lancaster, 1 case; Washington C.H., 2 cases; Lima, 2 cases; Garrettsville, 1 case; Piqua, 2 cases; Wabash Tp., 2 cases; Urbana, 1 case; Kent, 1 case; Tiffin, 3 cases; West Cleveland, 2 cases; Crestline, 4 cases, 1 death. Reported by observers at Blanchester, New Vienna, and Canal Dover.

Typhoid Fever reported by health officers: Cleveland, 16 cases, 2 deaths; Youngstown, 2 cases; Springfield, 4 cases; Defiance, 1 case; Crestline, 2 cases; Wadsworth, 1 case. Reported by observers at New California, Madisonville, Plain City, Oberlin, Martin's Ferry, and Moor's Fork P.O.

Health officers report no infectious diseases present in the following places: Painesville, Salem, Wooster, Warren, Dalton, Mt. Vernon, St. Paris, and Felicity.

C. O. Probst, M.D., Secretary.

SOCIETY NOTICES.

During the Christmas holidays the Cincinnati societies have adjourned, the Academy of Medicine until Monday evening, January 5, 1890, and the Cincinnati Medical Society until Tuesday evening, January 6, 1890.

Transactions of the American Otological Society. — The twenty-second annual meeting of the American Otological Society was held at New London, Conn., on July 16, 1889, with an attendance of twenty-nine members. The President, in calling the meeting to order, referred to the death of Dr. E. Williams, of Cincinnati, one of the founders of the Society. A committee, consisting of Drs. S. C. Ayres and W. W. Seely, was appointed to prepare a suitable obituary notice for insertion in the Transactions. There were quite a number of papers read on various diseases of the ear, with discussions following. Photographs of pathological conditions of the ear and a communication on photography and the projection-lantern in the teaching of otology were also presented. The Society adjourned to meet on the day preceding the annual meeting of the American Ophthalmological Society, and at the same place.

W. R. A.

Statistics of Leprosy in the United States.—In view of the general impression that leprosy is spreading in this country, it is desirable, in the interest of the public health, to obtain accurate information upon this point. The undersigned is engaged in collecting statistics of all cases of leprosy in the United States, and he would ask members of the profession to aid in this work by sending a report of any case or cases under their observation, or coming within their knowledge.

Please give location, age, sex, and nationality of the patient, and the form of the disease — tubercular or anæsthetic; also any facts bearing upon the question of contagion and heredity. Address, Dr. Prince A. Morrow, *Journal of Cutaneous and Genito-Urinary Diseases*, 66 West 40th street, New York.

FOR SALE, ETC.

FOR SALE.—In western Indiana, with lucrative practice, for sale a good two-story frame dwelling, containing twelve rooms, in good repair. The lot without improvements would bring cash $2,500. Improvements, at lowest estimate worth $2,500. Healthy neighborhood, and one of the best in the city. City contains 12,000 inhabitants, is a railroad centre and is improving, having water, gas, and electric works, etc. Will take $4,000 in easy payments. Cause for selling—wish to retire.

3 Address, S. Care of Lancet-Clinic office.

FOR SALE.—A lucrative established practice for sale, with good two-story frame house and office, stables, etc., all in good order. Possession given immediately upon sale of premises, and good will of practice to go with sale. Terms reasonable. Cause for selling—wish to retire.

Address, Dr. C. T. McKibben, Moscow, O.
Or Lancet-Clinic office. tf

FOR SALE —A physician's home: two-story frame residence with out-buildings and a physician's office, also 94 acres of land, in grass for past fifteen years. Residence and office have been those of a physician for over thirty-five years, and for past ten years occupied by two physicians. Price, $6,000; one-half down, balance in one and two years. Write for particulars.

2 Mrs. J. H. Aitkin,
Fleming Co. Sherburne, Ky.

FOR SALE.—$1,500 will purchase my property, with practice included, situated in the town of Potsdam, Miami County, Ohio. A fine locality, with the best of roads. Terms reasonable. A bargain for the right man. Must be a "R."

3 Address, S. P. Deahofe, M.D.,
Miami Co. Potsdam, Ohio.

FOR SALE.—$3.000 cash practice. A fine location in Colorado. No competition nearer than twelve miles. Resign office of Coroner and Surgeon to 800 miles of railroad. Delightful roads, fine climate. Owner has interests elsewhere and must change.

5 Address, Box 8 Elbert, Colorado.

SAMPLES of Sander & Sons' Eucalypti Extract (Eucalyptol), gratis, through Dr. Sander, Dillon, Iowo. Eucalyptol stands foremost as a disinfectant, is a perfect check to inflammatory action, and invaluable in zymotic diseases,

Selected.

A CASE OF CEREBRAL TUMOR SUCCESSFULLY REMOVED BY TREPHINING.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association, held in Leeds, August, 1889.

By Rushton Parker, B.S., F.R.C.S.

[*British Medical Journal.*]

This case occurred in the practice of Dr. Austin Williams, of Liverpool, and was attended also by my colleague, Dr. Glynn, both of whom were present at the operation. The patient is a big, strong man, aged 38. The symptoms observed—long-standing headaches, and latterly mental dulness, followed by almost total paralysis of the left arm and distinct weakness of the left leg—pointed clearly to the probability of an intra-cranial growth of some kind; but the administration of iodide of potassium for three weeks not having relieved the symptoms, which had, on the contrary, become worse, the state of the case becoming urgent, the operation was performed on February 23, 1889.

Dr. Glynn looked for but found no optic neuritis. There could have been no difficulty in localizing the tumor in the right Rolandic area by ordinary methods of estimation and measurement outside the head, but any such process was rendered unnecessary by the existence of a puffy swelling of the scalp in front of the right parietal eminence. What this might have to do with the tumor supposed to be inside was quite unknown, for it appeared to be, as it proved, entirely outside, and not attended with perforation, or, in fact, any but the most trifling alteration of the bone. But, situated in the region which must have been chosen, it was accepted as the guide, exposed in the middle of the flap turned down, and found to consist of pericranium, thickened and softened, though retaining its textural continuity, and at the end of the operation was dissected away. The skull was opened with a one-and-a-half-inch trephine, and a rounded tumor, the size of a walnut, with a bit of adherent dura mater, was shelled out by breaking through the surrounding brain with the fingers.(1) The flap was attached with very few sutures, and held down by antiseptic padding and a close bandage. In consequence of the rather profuse discharge of serum on the third day, drainage-tubes were then introduced. There later followed pulsation over the hole and suppuration in their track, with increasing uneasiness and a return of paralysis that had almost gone, until by the nineteenth day matters were truly critical. Then, under chloroform, the almost healed flap was turned down again, and found, in the main, healthily united to the brain beneath. This, however, being œdematous and prominent, was sliced off level with the bone, revealing sinuses lined with puriform lymph, which was scraped away and the wound packed. No more bad symptoms of any kind were met with again, and the patient's immediate safety became quickly established. A large fungus, however, resulted, and showed no disposition to subside spontaneously, but was reduced by force on the thirty-second day, and the skin-flap laid down on it, and kept down by a plug of coins folded up in antiseptic gauze under a sheet of tin plate. Six days later the fungus was replaced by a chasm lined with granulating brain. Eventually satisfactory healing occurred, with gradual restoration of the patient's strength, which had become much reduced before the second operation, and remained low while the fungus lasted.

Total paralysis of the arm and much of the leg followed each operation, and lasted a day on the first, but ten days on the second occasion. Gradual improvement in this respect has continued up to the present time. He sat up daily after the thirty-sixth day, but was not soundly healed till the eightieth, by which time he could walk by himself in rather a staggering way. With the arm he was then still rather lame, and could not find or seize objects while his eyes were shut, or distinguish, for instance, a tall hat from a spectacle-case when holding them; but all this slowly improved, and at the end of five months he could turn over the leaves of a book pretty well when his eyes were open, though fumbling a good deal when his eyes were shut.

A great benefit owned by him is the total loss of headaches and the dazed feel-

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1 After section of dura mater all round the adhesion, which proved inseparable.

ing and manner that preceded operation. He expressed himself as quite restored to mental vigor and comfort. All traces of paralysis have long left the face, while the strength of the affected limbs has improved with each month, and the tactile discrimination and muscular sense of the arm are now completely restored.

A review of all the circumstances convinces me that the case is one of gumma, and a former medical attendant has since informed me that he treated him, six years ago, with iodide of potassium for a periosteal swelling of the sternum, which got well. The puffy swelling of the pericranium; the thickened, adherent, puckered and depressed dura mater; and other anatomical features to be mentioned, favor this pathological view, which is supported, I believe, by the absence of optic neuritis as a clinical symptom. Good microscopical slides were kindly made by Mr. W. T. Thomas and by Dr. Glynn; those of the latter including some by a process of Weigert, showing nerve axis cylinders ramifying in the tumor, and proving its infiltrating character. The tumor showed the form of two convolutions on its surface, slightly paler than natural, somewhat prominent and hard (hard enough to prevent, in the trephine hole, pulsation of the exposed brain until the tumor was removed). When cut into it was very like a firm sarcoma—showing microscopically, however, no structure of sarcoma or of any proper tumor, but accumulations of round-cells and free nuclei around the vessels and in a fibrillar basis, alternating with patches of recognizable brain substance containing cortical cells, and with hazy fibrinous areas, indicating caseation. To the naked eye, however, no suggestion of caseation occurred.

On the question of injury, there is no certain history; but I am informed that there has been ample opportunity, the patient having in former years been severely knocked about in accidents of various kinds.

SUCCESSFUL REMOVAL OF A KNIFE FROM THE BLADDER.—At a recent meeting of the National Academy of Medicine of Mexico (*Medicina Practica*, October 23), Dr. Lavista related the following case: A man about 35 years of age received a stab in the abdomen which penetrated the bladder. The man, who was on horseback at the time, made the animal rear when he felt himself wounded, and the blade of the knife was broken over the pubic bone, one of the fragments (ninety-three millimétres long) falling into the bladder, where it remained for two years and a half. The wound gradually closed, but the foreign body set up severe cystitis, and from the time of the injury the patient was never able to hold his body quite straight—it was always bent a little forward. He suffered such incessant pain that he could hardly sleep, and he became greatly emaciated. Calculus having been diagnosed, lithotrity was attempted, but it was found impossible to crush the stone. An exploratory opening was then made through the perineum, when the knife was discovered "placed like a bridge between the two walls—anterior and posterior—of the bladder, directed obliquely downwards and backwards, the edge being undermost." It was so immovably fixed in this position that it was impossible to remove it through the perineum. Suprapubic cystotomy was then performed, an incision ten centimètres in length being made. Even this was not sufficient, and the wound had to be enlarged. The knife was at last got out, and then the fragments of a large stone, which had distended the bladder, and in this manner had prevented the point of the knife from penetrating its wall, were removed. The walls of the bladder were ulcerated and covered with vegetations. After scraping the mucous membrane, the wound of the bladder-wall was accurately sutured, provision being made for drainage both above the pubes and through the perineum. "Healing was almost immediate, no untoward circumstance occurred, and the course of the case has been of the happiest." One hardly knows which most to admire in this extraordinary case—the skill of the surgeon or the phenomenal endurance of the patient.—*London Med. Recorder.*

DR. SCALGI, of Rome, recommends for antisepsis, very weak solutions of mercuric chloride at a temperature of 40 or 50 degrees C. as being more active than ordinary solutions now used in surgery.

These, according to the Annales d'Orthopedie, produce at the surface of the wound, a coagulation with union by first intention. The strength employed is one to 10,000 or 20,000.

LARYNGECTOMY FOR CANCER.

[*British Med. Journal.*]

A case of complete extirpation of the larynx for medullary cancer is reported by Dr. E. Boccomini, surgeon to the Ospedale Maggiore, of Milan (*Gassetta Medica Lombarda*, October 12 and 19). The patient, a man, aged 54, had been hoarse since August, 1887. In March, 1888, he was examined by the well-known laryngologist, Professor Labus, who pronounced him to be suffering from epithelial cancer of the right side of the larynx (vocal cord and ventricular band). "Purely by way of experiment" a course of iodide of potassium was prescribed, and when the man was admitted to the Ospedale Maggiore on September 27, 1888, his breathing was so embarrassed that he could not lie down in bed, and sleep was impossible. Tracheotomy was at once performed, and the growth being found to have increased so much as to leave but a little chink at the posterior part of the glottis for the passage of air, it was determined to remove the larynx. The operation was performed on October 25, the trachea being divided immediately below the cricoid cartilarge. The upper cut margin of the anterior wall of the pharynx was stitched to the edges of the skin-wound, and an œsophageal tube passed in and fixed in position. The upper end of the divided trachea was plugged with iodoform gauze (respiration being carried out through the tracheotomy tube), and a dressing of the same material was placed over the wound. The patient showed hardly any sign of shock, and everything went well till the seventh day, when he complained of pain in the chest and epigastrium. This immediately ceased on the œsophageal tube being removed, and it was found that he could swallow milk, concentrated beef-tea, and wine sufficiently well to allow artificial feeding to be dispensed with. On the eighteenth day he was able to swallow solid substances like fried brain, chicken, and bread; on the twenty-seventh the wound was healed, with the exception of a tiny fistula under the hyoid bone, leading into the pharynx. There was no trace of recurrence. Although the patient had now completely recovered, Dr. Boccomini induced him to stay in the hospital, where he could live more comfortably than at home, and at the same time be under constant observation. For some months he remained there in perfect health, eating the ordinary "full diet" with excellent appetite, cleaning and changing the thracheotomy tube for himself, and, though of course voiceless, even managing to speak so as to be intelligible at a little distance. About the middle of February recurrence took place in the neck; dysphagia came on, and the man died exhausted on April 19, five months and twenty-four days after the operation. Up to the last he breathed through the cannula without difficulty. The disease was proved by microscopic examination to be medullary cancer. — *British Med. Journal.*

DRAINAGE OF OPERATION WOUNDS.—Dr. I. Boeckel, of Strassburg, who for many years has protested against prolonged drainage in the treatment of wounds, has recently discarded drainage altogether after operations, and now regards this practice as erroneous and absurd. In favor of this opinion, a report was made in May to the Société de Chirurgie, of Paris, of thirty-six cases of operation treated in the Strassburg clinique with complete and speedy success without the use of drain tubes. This list of cases included one of trephining for compound fracture of the cranium, four of cancer of the breast, two of amputation of the thigh, and ten of resection of the kneee. In most instances the wound was covered by iodoform dressing, which was allowed to remain until the completion of the healing process. Dr. Boeckel is a firm believer in the antiseptic method, but endeavors to attain simplicity of detail in the use, during and after operation, of surgical appliances and dressings. The essential point, he holds, is to maintain a rigorous antisepsis during the operation, from the first application of the knife to the completion of the dressing. In certain operations, such as resections of the knee and elbow, and, indeed, articular and osseous resection in general, Dr. Boeckel, in order to save time and to avoid all possible risk of infection from the presence of ligatures and the temporary contact of hæmostatic forceps, trusts to methodical compression and vertical elevation of the limb for the prevention of hemorrhage. The surgeon, it is held, should, in a course of a long operation, wash his hands frequently in a weak solution of corrosive sublimate. Gauze pads are used in the place of sponges, and in order to obliterate as far as possible any cavities at the bottom of the wound, the flaps are brought together by deep sutures. Owing to these precautions, Dr. Boeckel is now able in any serious operation to dispense with the inconvenient plan of drainage, and at the same time to effect complete healing of the wound under a single dressing. In all the thirty-three cases mentioned in this report, repair, it is stated, took place in a very striking manner, and without fever, pain, or suppuration.—*London Medical Recorder.*

FATAL RESULT OF SUSPENSION FOR ATAXY.—A case of locomotor ataxy, in which suspension was followed by death, was not long ago reported by Dr. C. Borsari (*Rivista Generale Italiana di Clinica Medica*, October 25). The patient, a man aged 45, was in the second stage of the disease, which was complicated by aortic imcompetence. After the first suspension, which lasted fifteen minutes, and was carried out "with every precaution and with the help of a well-constructed apparatus," the patient had momentary anæsthesia in the feet; his face became pale, his eyes glassy, and he complained of giddiness and faintness. These symptoms passed off after a while, and the man was able to walk back to his ward. He was afterwards suspended for short periods on alternate days, though the operation was always followed by increase of staggering in the gait, by convulsive movements of the arms and legs, and by pallor and an expression of distress in the countenance. After three or four sittings, however, there was a notable improvement in motor co-ordination. Later on violent vomiting (an entirely new feature in the case), set in, together with a certain amount of pyrexia, which lasted for forty-eight hours. When the temperature fell to normal he was suspended for the eighth time, the operation lasting forty seconds and being followed by no untoward effect. Soon afterwards, however, the vomiting became worse, and the man complained of intense pain in the epigastrium. This was speedily followed by delirium with convulsions, ending in coma and death three days after the last suspension. The necroposy confirmed the presence of the aortic disease and the characteristic lesions in the spinal cord; in addition to these there were also found signs of acute exudative leptomeningitis, both cerebral and spinal, the latter being in the dorso-cervical region. There was no indication that the affection of the heart had been in any way aggravated by the suspension; and Dr. Borsari leaves it to be settled by further experience whether the acute inflammatory process was set up by the strain to which the membranes of the spinal nerve roots were subjected during suspension. He points out that, although suspension has been performed thousands of times, no similar accident has yet been recorded.—*British Med. Journal.*

GASTRIC EPILEPSY.—The *London Medical Recorder* quotes from *Lo Sperimentale*, two cases by Massolongo, of epilepsy with peculiar attending features. In neither patient had any of the customary antecedents existed; both suffered from epiletic attacks, supervening after gastric disturbances, characterized by vomiting of food and obstinate constipation. After treatment of the dyspeptic symptoms, the patients completely recovered. Massolongo, after recalling the cases described by Pommay and by Lepine and Schultz, cannot accept the explanation of the first, that these epileptic attacks are due to irritation of the pneumogastric; nor can he accept the hypothesis of Lepine, who believes the epilepsy in his cases of dyscrasic origin. Like Pommay, he thinks the cause resides in the stomach, but the attacks are not due to peripheral irritation of the pneumogastric, but to the absorption of anomalous products of stomach decomposition, which in dyspeptics are elaborated in great quantity. We have to do, then, not with a reflex, but with a toxic epilepsy. The favorable results obtained by removing with antiseptics these anomalous products support this hypothesis of the pathogenesis of phenomena so frequent in dyspeptics.

STERILIZED LINT.—M. Regnier renders lint sterile by heating it to a temperature of 120° C. (248° F.). M. Regnier has tested the antiseptic value of lint thus prepared in dressings applied after operations of various kinds with good results. At the recent Surgical Congress he stated that he considered sterilised lint equal to antiseptic dressings.—*N. Y. Med. Record.*

See Reduction Rates on advg. page 12.

A METHOD OF LOCAL MEDICATION IN PERFORATIVE OTORRHŒA.

By A. Marmaduke Sheild, M.B. Cantab. F.R.C.S.

[*The Practitioner.*]

All practical surgeons know how incomplete is the application by patients of the local remedies prescribed for them in cases of otorrhœa. Proper cleansing of the parts, so essential in bad cases of this kind, can only be thoroughly done by a skilled practitioner. Few patients believe this, few can afford the requisite time and expense, fewer still can be brought to understand that the malady is of sufficient urgency and importance to necessitate constant professional care. Any one who studies the treatment of these affections in the various text-books, English and Continental, will be surprised at the variety of applications employed, and the strength, not to say severity, of some of them. While a large number of cases can be satisfactorily treated on the simplest principles, we meet with others, especially in hospital practice, where the opposite condition obtains. I refer to instances of very profuse discharge and excessive fœtor, with granulations, and, possibly, bone disease. When such cases can only be seen at infrequent intervals it is exceedingly difficult to deal with them satisfactorily. The "blowing" of antiseptic powders into the ear is often advised. Should the prescriber investigate the case after this is done by the friends of the patient, he will usually find the major part of his remedies deposited anywhere but within the auditory canal.

The plan I call attention to is based upon a method of application of local remedies often adopted in other parts of the body. I allude to the employment of suppositories. In the present instance "pellets" would be a more satisfactory term. These have been manufactured for me by Messrs. Corbyn & Stacey, of Bond street, London, who possess the formulæ. I have tried various sizes, but that of a swan-shot seems about the most generally convenient. These small round balls can be made of any size specified, and various drugs can be incorporated with the oil of theobroma which forms the basis, so that they quickly melt within the canal at the temperature of the ear. Up to the present time iodoform, boric acid, and tannic acid have been thus employed. It is obvious that any drug, anodyne or otherwise, could be similarly used and applied; morphine, for instance, in cases where pain is a prominent symptom.

The method of application is as follows: At night time, the patient lying on the opposite side, one of the pellets is quickly taken up and dropped into the meatus. The tragus being drawn backwards and shaken, the little ball soon enters the canal. A plug of wool is then introduced, and the patient sleeps in the same position. The parts are thus for several hours impregnated with the agents introduced. The basis is soft, and so readily melts in the fingers that the pellets must be kept in a cool place, and rapidly dropped into the ear. Should they stick on the walls of the canal the point of a fine dry brush can be used to push them onwards, and this instrument can be entrusted to unskilled hands.

I have employed these simple remedies in enough cases to convince me of their utility. Several students affected with otorrhœa have adopted the use of these pellets and have spoken favorably of them. It must not for one moment be imagined that this treatment is to be regarded in the light of a specific for otorrhœa. New methods or remedies are too often adopted blindly in all sorts of unsuitable cases, and the results being disappointing they sink into undeserved oblivion. Oily applications of all sorts are apt to turn rancid and cause clogging of epithelial *débris* and discharge. Accordingly the gentle and persevering use of the syringe is very essential, when oleaginous remedies are employed. In cases that can be seen and treated daily by the surgeon himself these remedies are not indicated; in other circumstances, and especially in out-patient practice, they will be found most useful adjuncts to cleanliness and asepticism. Their composition and size can obviously be varied according to the case or the fancy of the prescriber.

The Treatment of Glaucoma.—Dr. Jonathan Hutchinson (*British Med. Jour.*) says:

1. As a rule a free iridectomy is the safest and best treatment for all forms of primary glaucoma.

2. It is always well to use eserine before

resorting to operation. In a very small minority eserine will be found to completely relieve the symptoms, and in a still smaller group the relief given by it may be permanent.

3. The continued use of eserine will very seldom suffice to prevent the recurrence of glaucomatous tension, and in any case in which, in spite of it, the sight is declining and the field contracting, an operation should be resorted to.

4. The cases in which eserine is most useful are, first, those in which the disease has been induced by atropine, and next those in which the disease recurs after long intervals.

5. The more nearly any case approaches to the type of acute glaucoma, the more probable it is that iridectomy will put an end to the process.

6. The more absolute simple the case is, that is the more entirely free from pain, congestion, perception of haloes, etc., the less is there to be hoped from an operation.

7. Cases of simple glaucoma are not as a rule benefited by the continuous use of eserine, and the choice lies between letting the disease run its course and an operation. The progress of simple glaucoma is often very slow, and the interval is often long before the second eye is affected.

8. It follows from the last proposition, if simple glaucoma occurs in an old person, or to one in feeble health, that the patient's sight may easily last out his life.

9. Iridectomy for simple glaucoma is often followed by immediate deterioration in sight and advancing pallor of the disc, with or without recurrence of increased tension. It can by no means be regarded as a harmless operation. When iridectomy is done for simple glaucoma, it should always be done very freely, and the patient should be prepared for the possibility that a second operation may be requisite.

10. In the first instance, iridectomy is preferable to sclerotomy, but if a relapse has occurred, then the latter may, in the hands of one well experienced in its performance, be a better procedure for a second operation.

11. A certain number of glaucoma cases, more especially those occurring in young adults and in association with a definite inheritance of tendency to gout, should be treated with referance to that fact.

12. A certain number of cases of secondary glaucoma, especially those in connection with iritis, cyclitis, etc., are susceptible of permanent relief by eserine, and do not require an operation. This remark probably applies to most cases of increased tension in association with interstitial keratitis.

13. Although, as has been admitted, the prognosis after operation for simple glaucoma is always doubtful, it is yet the surgeon's duty to resort to operation in all cases in which the disease is definitely advancing, very old patients being alone excepted.

14. If after an operation for glaccoma, recovery has once been well established, and the increase of tension completely relieved, it is very rare indeed for the disease to recur. Eyes once saved usually wear well.

THE SHUTTLE PULSE AND ITS PORTENT IN PRACTICE.—There is a peculiar pulse which I have sometimes felt, but never without a shudder, when felt in the radials of those whom I have loved—never without grave prognostic impression whenever perceived in any patient. I mean the shuttle pulse, as I would call it; a pulse in which the pulse wave passes under your finger as if it were floating something solid as well as fluid—that something passes along the blood current under your finger like the weaver's shuttle through the loom. I have felt it in cases only where the blood was hydræmic and a local rheumatic inflammation existed or had recently existed within the heart.

I have called it the "shuttle" pulse because I can liken it to nothing else, and because the impression it makes suggests the name. If you have ever felt this pulse, did you ever know of a patient recovering after its appearance? Did you ever know a patient after its appearance to escape the consequences of embolic closure of vessels? To me it is the pulse of fibrinous coagula going the rounds of the circulation. Its portent has ever been evil. It is a pulse of dark prognosis and painful memories—the pulse of impending death in part or whole. I think I have never known a patient to live after such a pulse has been detected. It is the pulse of fatal rheumatic endocarditis or endoarteritis and its sequent and associate anæmia and emboli.—C. H. Hughes, M.D., *St. Louis Med. and Surg. Journal.*

THE BOSTON CONFERENCE ON PHYSICAL CULTURE.

[*Boston Medical and Surgical Journal.*]

The conference of educators and physicians held in Boston last week upon the subject of the best methods of carrying on physical education in connection with the public schools and the colleges, was, at least so far as the spirit and interest manifested, a great success. That a large hall, holding a thousand or more people, should be filled morning and afternoon for two successive days indicates a growth of public interest in this subject, which is most gratifying, in view of the general apathy with which appeals for the need of physical culture have been met in years past. That a part of the present interest was, perhaps, due to the conflict of rival systems, contesting for favor before the school authorities, does not derogate materially from the satisfactoriness of the occasion. For even if the innate liking for a fight were the immediate cause which brought some of the auditors together it matter little, so that they came to see that it was something important that the contestants were fighting about. And we cannot suppose that any pugnacious feelings had a place in the breasts of most of those in attendance, for were not a majority of the audiences of the gentle sex?

The conference was understood to be under the auspices of a benevolent lady, who has taken much interest in the subject and has expended liberally of her means to secure instruction in it for the public school teachers, and, while she is a distinct favorer of the Ling or Swedish system, a fair field was offered to all who had other methods to advance. The German Turners presented and illustrated their system; the so-called American system was presented by a class under the direction of one of the Boston gymnasiums; the military drill was given a hearing; the Swedish system was explained by Dr. Nils Posse, and a class of female teachers demonstrated the movements. The directors of a number of the college gymnasiums also gave an account of their work. Dr. Hartwell, of Johns Hopkins; Dr. Sargent, of Harvard; Dr. Seaver, of Yale, and Dr. Hitchcock of Amherst.

Professor William T. Harris, United States Commissioner of Education, presided ably over the discussions, and at the close a pleasant reception was given to the gentlemen and ladies who were the guests of the occasion.

Without entering at all upon the controversies which are in the air as to methods, we may say that to our minds the choice of any particular system is of much less importance than that *some* plan should be adopted, under competent supervision of a person who believes in it and can handle it. In such hands any one of the opposing systems can doubtless do good—some undoubtedly more than others. But that the necessity of doing something is beginning to be felt, we hopefully believe. An excellent committee was appointed at the close of the conference, the only objection to which is its size, to consider carefully the methods which have been or may be presented, to report upon them, and to make suggestions as to the method of physical training best adapted for introduction into the public schools.

In regard to colleges, we believe that a department of physical education should be given a place and a voice in the regular curriculum, even if not put upon a footing of recognized equality with other departments. Such a place, such a department, has already been given at the Johns Hopkins University; and Amherst is understood to be favorably impressed with the plan. The mature, well-balanced adult of the future will probably look back with as much satisfaction to the time devoted to this department of school and college work, if having had the good fortune to be under judicious direction, as to that spent in any or all others.

In this connection, by the way, we note with pleasure that a professorship of hygiene and physical culture has just been endowed at the Pennsylvania College, at Gettysburg, with the sum of $25,000, in memory of Dr. Charles H. Graff, by his parents. A similar memorial in other schools and colleges, at present unprovided for in this regard, would be a most admirable way of honoring the dead while serving the living.

THUMB SUCKING.—Mr. S. O. Eades (*British Med. Journal*) disputes the notion, that thumb sucking is injurious. He says: "I always advise parents to encourage this habit, especially during dentition. Sucking the thumb causes the salivary glands to pour out their secretion, thus moistening the mouth and aiding digestion; the pressure of the thumb eases, while the teeth are "breeding," the irritation and pain of the gums, and helps, when the teeth are sufficiently advanced, to bring them through. Sucking of the thumb, moreover, makes a cross infant contented and happy, and frequently induces a restless babe to fall into a sweet, refreshing sleep. After dentition is completed it is likely to become a habit with a child; in that case it may be readily cured by smearing its thumb with a paste of aloes and water; one or two applications will suffice, as after tasting the bitter it will eschew its former enjoyment. I may add that thumb sucking, in my opinion, is far preferable to ivory, india rubber rings, nipples, etc., we see so frequently given to these poor mortals by their loving mothers."

THE TREATMENT OF FURUNCLES.—Staff-Surgeon Leu, of the German army, sums up a long communication to the *Deutsche Militararztliche Zeitschrift* on the treatment of furuncles, with the following conclusions: Subcutaneous injection of carbolic acid is a simple and effectual abortive treatment of furuncles. Incipient furuncles which have not yet suppurated are especially adapted for this treatment. A cure results in these cases without necrosis of connective tissue; in the more advanced furuncles which have formed pus, or are even discharging it, no deforming cicatrization follows. The proper strength of the carbolic acid is three per cent. This mode of treatment is particularly valuable in the army, because it shortens the time on the sick-list (when it is necessary to put the man on at all), and he returns to duty with a better cicatrix, while many may be treated without going to hospital. The simplicity of the apparatus required, consisting only of a Pravaz syringe and a small bottle of carbolic solution, makes it possible to apply the same anywhere and at all times—for instance, during maneuvers and on the march.—*Lancet.*

THE *Times and Register* says that Dr. Morton recently divided the tendons of a congenital epileptic for equino-varus. Since the operation no fits have occurred. The ovaries were not removed, nor the ocular muscles weakened by tenotomy.

PRACTICAL STUDIES ON THE NERVOUS AND MECHANICAL GOVERNMENT OF RESPIRATION.

[*American Lancet.*]

The Warren Triennial and Cartwright Prize for 1889 was awarded to Drs. Hobart A. Hare and Edward Martin, for an essay entitled, "Practical Studies on the Nervous and Mechanical Government of Respiration," designed to determine the best methods of treating disorders of the same, more particularly those produced by traumatism to the phrenic nerves or the inhalation of noxious gases.

The following conclusions were deduced as to the results of a number of carefully repeated experiments made and with which summary their paper is concluded:

1. Injury or destruction of the phrenic nerve is not followed by death as has heretofore been taught.

2. That in injuries involving the diaphragmatic movements it is important that the patient shall not be anæsthetized, as under those circumstances the absence of voluntary aid in respiration may be attended by fatal results.

3. The seriousness of phrenic nerve injury is in direct ratio to the dependence of the respiration of the normal animal on the diaphragm and to the ability of the chest-walls to make compensatory movement.

4. The symptoms resulting from interference with the function of the phrenic nerves are as definite and characteristic as those following interference with any other motor nerves. There will always be well marked increase in the scope of the thoracic excursons and distinct reversal of the movements of the belly, *i. e.*, the belly will retract on inspiration.

5. Fear of injury to one or both phrenic nerves need not prevent operations about the neck and upper portion of the chest, provided that due caution can be exercised and the patient is but slightly under the influence of the anæsthetic at the time that danger of injury to these nerves is most imminent. Infancy, however, constitutes an exception to this rule, as only absolute and pressing necessity for operating could afford qualification for such a procedure in early life.

6. The real effects of section of the phrenic nerves being known, it follows that the nerves are subject to the same operation in case of injury as are other nerves of the body, such as suture.

7. The presence of the abdominal viscera are necessary for the normal movements of the diaphragm.

8. The abdominal contents may alone be used for the production of artificial respiration, but while they are always to be employed to this end, their use should never be allowed to displace those movements which are directed to the chest. Both should be used together if possible.

9. In cases of injury to the phrenic nerves, support should be given to the belly walls to prevent movement of the same, and to brace and steady the paralyzed diaphragm, care being taken that the floating ribs are free.

10. The method of Sylvester drives more air through the lungs than any other single method, but its best results are not gained unless the feet be drawn down as the arms are extended.

11. The volume of respired air after section of the phrenic nerves is temporarily decreased until the thorax compensates for the loss of the diaphragm.

12. Oxygen gas is a valuable agent in the treatment of persons suffering from coal-gas poisoning.

13. Oxygen gas aids very materially in bridging over the respiratory crisis occurring after injury to the phrenic nerves.

14. In life-saving stations, mines, police stations, or other points to which asphyxiated persons may be brought for resuscitation, in hospital clinics, or in private houses where ether or chloroform is given, oxygen in appropriate form should be provided. The accoucheur also will find in this gas a valuable adjunct in the treatment of cases of suspended animation in the newly-born—very small cylinders containing forty gallons of the compressed gas are easily carried, and require but a small amount of space.

15. The electrical methods now employed for the resuscitation of persons who have ceased breathing are dangerous and unjustifiable.

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CINCINNATI LANCET-CLINIC:

A WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

NEW SERIES VOL. XXIII. Cincinnati, December 28, 1889. *WHOLE VOLUME LXII.*

Original Articles.

PASSION.—THE MODERN CRITIC.

REMARKS BY

CHAS. EVERETT WARREN, M.D.,
Boston, Mass.

PASSION.

"A still small voice that whispers to all and to others cries aloud, is 'Passion.'"

There is a healthy knowledge and an unhealthy ignorance unclean and destructive. It is not the knowledge, it is how we regard it, that is the point. Our happiness consists, not in not having passions, but in controlling them.

The prevalence of a species of literature peculiarly rampant during the past few years, so-called "passion" poetry and prose, illustrated with suggestive and very "Frenchy" engravings, many taken from life, furnishes a text for a sermon on a very vital subject. The motif of this literature is passion in all of its varied phases and expressions, and because of its audacity in speech and sentiment people say this is a more wicked age than any other. Yet passion is co-eval with Adam and is the mainspring of human action. The evil lies not in the existence of passion, but in its undue and unnatural suppression; not in its cultivation, but in its starvation. The sparks of passion are alight in every breast—sparks of life and action: quenched, they leave black ashes of despair; fanned by intemperance, they waste and consume that which they vivify with a healthful glow when properly tended.

To feel with one, to joy in his joy, to sorrow in his sorrow, to rhyme with him in everything—such is sympathy, the foundation of passion in the higher sense.

The sympathist does not unfeelingly criticize his fellow man. He thinks "Life is too short to waste in critic peep or cynic bark, quarrel or reprimand." He makes due allowance for difference of opinion and motive, and puts himself in others' places. Above all, he does not commit the fatal error of mistaking his own sins and sinfulness for those of others, nor unmercifully lash himself over the shoulders of others, with self-inflicted penance; neither does he brand himself a sinner in thought or action by the marks of the thongs. He never mistakes his own image, in the mirror of the world of fact or fiction, for that of another. He knows himself when he sees his counterfeit presentiment.

They say that he who drinks beer thinks beer, and surely he who drinks sensuality thinks sensuality, and believes it passion. The drunkard makes no distinction in drinks, only it must be strong. His power for fine discrimination in taste is destroyed by intemperance. The sensualist makes no distinction in passion, only it must be powerful, that is, sensual. Overindulgence in thought and act have destroyed nice distinctions of propriety. Chafed by the chains of the law, hemmed in by the bars of form, in fear of the white-hot brand of righteous indignation which society has ever heated to stigmatize transgressors, he dares not pass beyond the narrow limits of propriety and virtue into the open fields of libertinism and vice, but, consumed by lusts burning within, he vents his spleen in savage howling and snarling. He knows no higher passion, and does not realize that a shoot was taken from the parent stock which, by careful nurture, pruning, and training, has overshadowed the original plant, and, in place of a deadly upas tree with poisonous leaves and fruit, has become a tree of joy bearing the golden fruit of happiness.

Quotations always speak to the point better than opinions. They have the power of legal decisions—precedents which admit no dispute. They have no personal equation of prejudice or spite. They are weighty as the accumulation of years, and authoritative as the decisions of dispassionate judgment. The following are *a propos* to the subject:

"All the highest work in the world is done with passion," says the Reverend Stopford Brooke.

"If it were not for the passions no one would build a house, marry a wife, or do any work whatsoever," according to the Talmud.

"Eminent as was St. Paul as a man of action, it was only because he was very much greater as a man of passion." "Without vehement passion the highest kind of virtue is impossible" (R. H. Hutton). "St. Paul was a heart, a brain, and a soul of fire—all his life a suppressed volcano" (Robertson).

"Man's passions duly subjected are the very source and secret of his life. Life and passions may be almost called synonymous. They may be low or high, or warm or tepid, but passion there must be. If the passions are tepid the life must be tepid" (James Hinton).

"People are forever declaiming against the passions, but it is only the passions, and strong passions, that can raise the soul to great things. Sober passions produce only the commonplace. Evil passions degrade men. The man of mediocre passions lives and dies a brute" (Diderot).

"It is idle to talk of men numerically. If the passions of a man are exalted to the highest pitch he is a thousand men. In all desperate situations, when prudence is mute and reason baffled, there is no hope but in heroic passions—no safety but in sublime men.

"The performance of any action means the transformation of a certain amount of passion into its equivalent amount of motion. Reason and intellect are only instruments men use to gain the objects their passions aim at. Mere culture of the intellect is hardly at all operative upon the conduct. Intellect is not a power, but an instrument; not a thing that itself moves, but a thing that is moved and worked by forces behind it" (Spencer).

"Without moral force to whip it into action the achievements of intellect would be poor indeed" (Tyndall).

"Passions are the most truly creating things in the world, and the want of passion the truest death or unmaking of things" (Ruskin).

"The perfect life is the condition of the highest peace and the highest passion or emotion" (Schiller).

"The deepest thought can only come from the highest passion" (Heine).

"If you remove the passions you would at once become like a dead person" (Swedenborg).

"If God has not planted passions in your heart you may go on reasoning to all eternity without the slightest disposition to act. All motives come from the passions, all great action comes from the heart" (Sidney Smith).

The difficulty with the critic lies in his self-consciousness, his knowledge, his self-sufficiency, and his forgetfulness that there is anyone in the world other than himself, or that there has any right to be. He is an analyst, an expert in the dead side of nature. He is a vivisector of the most cruel type, without heart or soul. He lacks emotion. He is learned, but "the tree of knowledge is no more the tree of song than it is the tree of life."

"It is not the chill calculator who moves the world, but the man who is profoundly moved himself" (Brooke).

The heart is lacking, yet Sir Walter Scott says, "All is moonshine compared with the education of the heart, and Hafiz says the copper coin of the understanding counts not with the gold of love."

"Great discoverers of truths do not reason," says Father Newman. They see a truth but do not know how they see it. It is the second-rate men most useful in their place, who prove, reason and explain.

The critic applies the rule of philosophy to every passion, and yet Theodore Parker says "the results of it (philosophy) applied to the higher matters are, materialism in psychology, selfishness in ethics and atheism in theology."

"The moment a man begins to talk about rules you may know him to be a second-rate man. If he talks much about rules you may know him to be a third-rate man," so says Ruskin, "The whole art of a great artist's power depends upon his losing sight of his own existence. Great men never know why or how they do things—they have no rules."

The true critic is all rules and conventionalities. Like a machine, everything must revolve in its given place at a given speed, or else it will be out of gear and a horrible din and shrieking of disjointed parts result. Yet Dr. Maudesley says "the most important part of mental action is unconscious mental action. The inspired poet is simply dictated to from within. The characteristic of health in the brain is that its processes shall take place unconsciously. Contemplation of our own thoughts and feelings leads directly to insanity."

"In health the science of existence vanishes. Except we suffer we scarcely dream of our being. Self-consciousness culminates in suicide. Outside of consciousness there rolls a vast tide of life, which is far more important than the little rill of our thoughts, which runs within our ken" (Dallas).

Robertson says no true man is conscious that he is true, no really brave man is conscious that he is brave. They have no time to think about the matter.

Socrates thought that the only thing that he knew was that he knew nothing. Spencer proclaims that "the man of science alone knows truly that in his conscience nothing can be known."

"Behold, we know not anything we can but trust" (Tennyson).

"We are as ignorant of spirit, as of substance. We only know its manifestations. Man can know nothing absolutely" (Locke).

"A little light of human intelligence shines as a mere speck amidst the abyss of the unknown and unknowable" (Huxley). "Human knowledge is like a farthing rushlight, surrounded by an infinite expanse of darkness. It is only in the dark circle of ignorance that knowledge is regarded as certain and complete" (Holland).

The higher we rise in knowledge the vaster is the expanse of ignorance before us. "Knowledge is our ignorance classified," says Lamb. "The highest knowledge is the consciousness of ignorance," says Hamilton, and Montaigne claims that "the surest sign of wisdom is confession of ignorance."

All these are points for the consideration of the professional critic, cynic, and pessimist, who, with the characteristic scepticism of the age, believes in nothing good except himself, and believes in nothing true that he cannot prove, or grasp.

He will have no mystery, yet according to Kingsley, "the world is full of mysteries." "Only the shallow and conceited are unaware of their presence; only the shallow or conceited think they can explain them." Lewes says "we live encompassed by mystery."

Through this mist the critic would penetrate; he would tear away the veil in spite of the fact that, as Goethe says, "nature rejoices in illusion. Whoso destroys illusion in himself, him she punishes with the sternest tyranny. Whoso follows illusion, in faith, him she takes as a child to her bosom."

St. Paul writes "we are saved by hope; but hope that is seen is not hope." "Therefore," says Longfellow, "trust to thy heart and what the world calls illusion."

"A man admires a beautiful thing. He thinks about his feeling of admiration or analyzes it, and the beauty is gone," says Emerson. "We can describe every kind of wickedness and woe, but all we can say of bliss is it is unutterable. Life is destroyed by thinking of it" (Dallas). "Thought was not. In enjoyment it expired" (Wordsworth).

If the rule were followed never to criticize that which one could not himself produce of as great merit, or greater, there would be fewer critics. Yet the spirit of scorn breeds them in swarms that consume the author as the plagues did Egypt. The critic sits in the seat of the scornful. He wields the hammer and the axe of the iconoclast, breaking beautiful sculpture which he could not chisel, and hewing down that which he cannot build up.

Certainly his spirit is not a happy one nor a healthy one. He is in a condition of degeneration from healthy life with symptoms of negation or deficiency of vitality—that is, partial death, if we believe Ruskin, who says "life is a putting of things together and making them." "Death is an analysis of or pushing things apart and unmaking them."

Bishop Berkeley says, "few men think—all have opinions;" and Goethe "that in the world there are few voices and many echoes." What are the echoes from the critics? Listen!

We hear the knell of those whom they have killed, in spite of Milton's solemn warning: as good almost kill a man as kill a good book; who kills a man kills, a reasonable creature—God's image; but he who destroys a good book, kills reason itself—kills the image of God, as it were, in the eye.

Sentiments have been called flowers in the rocky pathway of life. Yet these critics would kill sentiment and leave only the rocks and bare sands of life. They moan because they find thorns on rose bushes and cannot see roses on thorn bushes. Yet

"There is no dearth of kindness
In this world of ours;
Only in our blindness
We gather thorns for flowers."

The critic has been referred to several times in the course of this article, and a few words about him may not be out of place.

THE MODERN CRITIC.

"In this day
All wish as cynic wits to hear the bell,
Men mock at honor, justice, love."

The modern critic is peculiar to the modern age. He is the outgrowth of a fast age. Books multiply so rapidly that no one person can hope to read even a fraction of the whole number. So critics read for us and formulate their judgment. Critics are proxies, standing for a certain class of constituents, whose sentiments they express. Their duty plainly is to act for the best interests of those whom they represent—to be echoes in fact in act and thought. Acting in the double capacity of judge and jury, they ought to be free from bias and prejudice. Their opinions should be candid and temperate—conservative and without malice. Yet how great a contrast does the reality present.

The average critic seems to think it his duty to find fault. Cynic is his name. Criticism and fault-finding are synonymous terms in his vocabulary. Sentiment and sympathy are marks of inaninity and weakness. He thinks it his duty to cultivate pessimism—to crush out the finer feelings of emotion. To hold the tender passions under a tight check, or, better still, to appear to have none, is his ultimatum. With a sharp probe he touches the quick and laughs to see the patient writhe in torture as he applies the biting caustic to the smarting wound. He is nothing in his own estimation if not cruel. Sarcasm and scepticism are the essence of his being. In his relations to his fellows he is a misanthrope and misogynist. He has no faith, therefore he believes nothing and no one. He has no hope, therefore he trusts nothing and no one. He is like the member of a club black-balling every candidate for admission, simply for the pleasure of rejecting him. That little black sphere gives him temporary power which he is loth to lose. Yet such an one is like the mean man, whose soul was so small, that if you put it into a peapod it would rattle like a bean in a bladder.

What writer has not endured the scorn of some new born critic fresh from the college campus with his keenly sharpened pen-knife, with which he hacks and cuts everything that comes in his way, whether it be a young and tender shoot or sturdy tree. It isn't safe to get near him, for he slashes away regardless of his surroundings, and in the darkness which envelops him he may strike to the quick. He is wise in his own conceit, and it isn't best to meddle with him. Like the owl, he sees clearly in the night of his own ignorance. Let him alone. When he is a little older he will know less than he does now, but be wiser in experience.

What author has not lived in fear and trembling of the fiat of some such critic. Who has not waited long and anxiously for returns from the papers and consoled himself with the trite maxim, "No news is good news." Who has not drank of the sweet cup of success and praise, and had the whole turned to bitterness by the one sprig of wormwood which some imp of malevolence has slipped in.

The critic of the day needs reforming. Let him learn to build up as well as to pull down. Let him be an author himself and he can appreciate the labors of others. Otherwise he cannot. Then he will be more chary in condemning, more charitable in his sympathy and praise. "A fellow feeling makes us wondrous kind." Try it, my friend—the critic! Change your coat and get one of less scornful pattern. Change your name and take one which does not imply fault-finding and hate. See if you cannot find some good in everything; be a little blind to the defects of life and art, and lend a helping hand.

L'Envoi

"Heed well this rhyme.
Life's many burdens tire.
To lighten them a little, ere our death,
This must be every man's desire."

21 Union Place.

NEAR-SIGHTEDNESS affects France as well as Germany; 46 per cent. of the French college seniors have myopic vision.

A CASE OF SUPPURATIVE HEPATITIS.

A Paper read before the Academy of Medicine, December 9, 1889,

By C. B. Schoolfield, M.D.,
Dayton, Ky.

This case presents some interesting and rare features that render it worthy of being reported; I therefore present it for your consideration.

J. P——, steamboat pilot, aged thirty; height, six feet ten inches; weight, when in health, 130 pounds; slight build; dark complexion; black hair and eyes; family history good. First taken November 12, 1887, with the following symptoms: Pain in right side over the liver and base of the lung of a lancinating character; chills and fever, irregular as to time and intensity; severe attacks of dyspnœa. The liver enlarged, dulness extending beyond the normal line in all directions. Diagnosis, acute hepatitis. Dr. Bebee, called in consultation, confirmed the same. In a few days it pointed through the lung, discharging large quantities of offensive pus, which continued for two months, the patient making a good recovery, regaining his usual health and weight and returning to his berth on a Memphis packet.

February 8, 1889, was called again to see him, finding the same symptoms as before, with increased dulness. Dr. Whittaker, called in consultation, confirmed a diagnosis of suppurative hepatitis and recommended aspiration, and if pus was found to cut down at once and give free drainage.

February 18, aspirated between the ninth and tenth ribs in the mammary line, striking pus-cavity at once.

On February 22 made a free incision at the point of aspiration, evacuating about one and one-half pints of flocculent offensive pus, and washed the cavity out with a solution of carbolic acid; put in drainage-tube and had the nurse wash it out twice daily as long as there was any purulent discharge. The patient made an uninterrupted recovery, the symptoms disappearing immediately after drainage, no fever, chills, or pain from the moment of evacuation until his perfect recovery, which was rapid, being just one month from the operation until the tube was taken out. After three or four weeks he felt so well that, contrary to my advice, he again took his old berth on the river, but only got as far as Evansville, when he was once more attacked by his old enemy and was brought home in a worse condition than before. This was May 8, 1889, and he arrived home on the 17th, with all his former symptoms: the area of dulness much increased, extending downward and inward as far as the umbilicus; there was quite a prominent tumor just below and to the right of the ensiform cartilage.

Owing to sickness in my own family I postponed operating on him until May 30, when his condition was such as to demand prompt relief. Assisted as before by my brother, S. D. Schoolfield, and my son Clarence, we put him under the influence of an anæsthetic and I made an incision two inches long at the most prominent point (two and one-half inches below the breast bone and two inches to the right of the median line), cutting down to the surface of the liver. The adhesions being insufficient at the lower side of the incision, I stitched the liver to the edge of the wound, then completing the operation by cutting through the liver until the abscess was reached, which was about two and one-half inches from the surface of the external abdominal walls, evacuating near a quart of pus, such as was found before; washed it out with antiseptic fluid, putting in a double drainage-tube. The patient was by this time in a state of collapse, almost pulseless, and covered with a cold sweat. Gave him a hypodermic of whisky, put him to bed, and applied hot irons and bottles, which brought about reaction. So far as the liver was concerned it was but a repetition of his former recovery, but there arose a very grave complication which bade fair to end his earthly career. When he awoke from the anæsthetic he complained of pain in his neck, and within twenty-four hours there was a most intense adenitis, involving the parotid, submaxillary, and sublingual glands of the right side; the face and neck were swollen from the eye, which was closed, down to the thyroid gland; the tongue was pushed backward and to the left side, rendering it difficult to feed him anything. As soon as there was fluctuation I opened the parotid gland, and also behind the ear, where it pointed. It is astonishing the amount of pus that was discharged from both these openings, the ear and mouth. He was the most pitiable object I ever looked at, and certainly a most unpromising case. Notwithstanding all, about June 7 he began to improve, and finally made what seemed as before a good recovery, and, contrary to my positive orders and advice, he went back to his steamboat piloting, doing well until October 31, when for the fourth time he was taken with hepatitis. This time he was sent to the Marine Hospital, and remained under the excellent care of Surgeon Long for about three weeks, but, getting homesick, was permitted to be brought home. During his stay in the hospital his symptoms were similar to his former attacks.

This case was reported to the Academy of Medicine (Cincinnati) December 2 and the patient died on December 12 with peritonitis. Six hours after death I held an autopsy, with the following results, viz.: Patient very much emaciated; slightly jaundiced. On opening the abdomen found general peritonitis; intestines bound together with adhesions. Spleen enlarged; weight, two pounds. Liver weighed five and one-half pounds. On examination of this organ found at the point where I had opened and drained it there was no sign of a recurrence—the tissues were perfectly healed; but on the posterior and under side of the right lobe there was an abscess which would hold probably two ounces of pus, with other smaller ones surrounding it. (I forgot to mention that on the 2d of December I introduced an aspirator needle at two different points, trying to find the abscess that I felt confident was there; but owing to the position I would have had to pass the needle almost through the lobe to have found it.) This abscess had opened into the lung, both of which were infiltrated with the pus, and also into the abdominal cavity, producing general peritonitis. The gall-bladder was almost empty, containing no concretions to account for the inflammation. There had been no enteric symptoms at any time to indicate its origin at that point, and the intestines were so matted together by adhesions that I made no examination of them. The cause seemed to be in the hepatic cells or the portal veins. The multiple abscess and absence of gall-stones would negative my theory advanced in the report to the society, that it was from these concretions that the trouble began.

I am not aware of any recorded case where there were as many recoveries in the same person as this. The autopsy showed plainly that the recoveries were perfect after each operation, in so far as that individual abscess was concerned. Of course the predisposing cause remained and reproduced the lesion after each recovery. One thing is remarkable, and that is the size of the liver; after all the disease and repeated enlargements, it was at the time of death almost normal in size. Had I been able to have reached the abscess and drained it he would have recovered again.

I am convinced, since my experience in this case, that to wait for fluctuation is fatal. When all other symptoms are present the exploring needle (aspirator) should be introduced, and, when found, pus should be evacuated without delay. When there is much of the glandular tissue to go through before reaching the pus-sac, it would be well to use the cautery knife to prevent embolism and perotitis. Sudden death might occur from a thrombus in the brain. The open sinuses of the liver are ready channels to pick up the pus as it passes over them and carry it to other and possibly vital organs.

[For discussion see page 720.]

Cooling the Body by Spray.—Dr. S. Placzek, in the *Lancet*, Nov. 9, 1889, says that he has applied the spray for the purpose of reducing febrile temperatures in human beings. In the case of a man suffering from phthisis, whose temperature was high, he found that by spraying about a pint of water at between 60° and 70° F. over his body the temperature fell to normal, and continued so for several hours. Again, a similar method was satisfactorily applied in the case of a girl with diphtheria. In the healthy human subject the spray lowered the temperature nearly 2°, and in animals which had been put into a condition of septic pyrexia by injections of bacteria the temperature was reduced to normal by the spray.

Operating tables in France are so constructed that the lower end can be elevated at a moment's notice, and thus when there is danger of heart failure, the patient can be held head downward till restored.

REPORT OF A CASE OF POPLITEAL ANEURISM.

COMPRESSION FOR TWENTY-FOUR HOURS; CURE.

A Paper read before the Cincinnati Medical Society, October 29, 1889,

By WM. L. MUSSEY, M.D.,
Cincinnati.

Mr. President and Gentlemen of the Society:

I take pleasure in calling your attention this evening to these notes on a case of popliteal aneurism.

The patient, a negro man about fifty years of age, well developed and nourished, presented himself for treatment at the Cincinnati Hospital, March 23, 1886. I was, at that time, Resident Physician at this institution, and on the service of Dr. N. P. Dandridge, through whose kindness these notes were placed at my disposal. The patient had been troubled with stiffness and pain in the left knee for three or four weeks, the affected joint being also considerably swollen. He stated that the stiffness and swelling began suddenly, pain coming on about a week later. The pain was usually dull and aching in character, but at times became sharp and darting, while at other times it was entirely absent. Pain is caused by locomotion. Patient denied specific disease, nor could any indications of syphilis be discovered.

Physical examination: The left knee was considerably swollen, swelling being more marked posteriorly, in popliteal space and to inner side of the joint. The leg was in a semi-flexed position and could not be straightened. The swollen portion was hard and resisting. Aspiration by a hypodermic syringe showed only a drop or two of blood. Auscultation revealed nothing. For several days there was no change in the symptoms. On March 28, or five days later, on palpation over the tumor, I detected a slight thrill, with expansive pulsation. Auscultation showed a blowing murmur, synchronous with the cardiac systole. The presence of these symptoms, with the exception of the thrill, was afterwards confirmed by Drs. Dandridge and J. C. Mackenzie, after a careful and thorough examination.

The diagnosis of aneurism of the popliteal artery having been made, Dr. Dandridge determined to try compression of the femoral artery just beyond its point of emergence from under Poupart's ligament. An apparatus for this purpose was arranged in the following manner. A bar of iron, bent on itself at a right angle, was fastened to the head of the bed, one arm projecting over the bed. To the end of this arm was attached a pulley carrying a line. One end of this line was free, to the other end was attached a frame-work designed to carry the weight. The frame-work had at its lower end a concave felt pad, cut so as to fit over the thumb of the compressor. By this arrangement the thumb acted merely as an intelligent compressing agent, the necessary force being represented by the weight. This proved to be of great advantage, as it obviated such frequent change in the compressor as the old method demanded. Ten pounds was the amount of weight employed. Compression was begun at 8:30 a.m., March 30, and continued uninterruptedly for twenty-four hours. When the compressors changed auscultation was practiced over the tumor to make sure that the bruit was effectually controlled by the new man. At 9:30 p.m., or thirteen hours after compression was begun, the tumor was perceptibly harder and no bruit could be detected when compressors were changed. The patient bore the operation remarkably well, only requiring three hypodermic injections of morphia during its continuance. These were given as follows: 12:30 p.m., gr. 1-4th; 9:30 p.m., gr. 1-6th; 3:15 a.m., gr. 1-6th. Half-ounce doses of whisky were given several times. After compression had been employed for twenty-four hours and no bruit or pulsation could be detected, it was discontinued. The leg was then bandaged from the tips of the toes to the upper part of the thigh, the knee being first enveloped in cotton and a shot-bag weighing ten pounds placed over the point where compression had been practiced. The limb was then elevated and the patient kept in the supine position. The shot-bag was removed on April 2, two days later. Morphia, gr. 1-4th, was required nearly every night during the week after the operation. On April 21 the patient got up, and with the assistance of a cane and crutch moved about quite well. The case was kept under observation in the Hospital until July 19, or for nearly four months, and during that time there was no resumption of bruit or pulsation nor any symptoms indicating a return of the aneurism. A sphygmographic tracing was taken before compression was begun, but it was not characteristic and cannot be utilized for demonstration.

Comparative measurements of knees, the left being the one affected:

LEFT.			RIGHT.
15	in.	4 in. above patella.	15 in.
15	“	3 “ “	14.9 “
15	“	2 “ “	14.6 “
15.9	“	1 “ “	14.3 “
17.1	“	Over patella.	14.5 “
15.1	“	Over lower end of patella.	12.8 “
14.8	“	Over tubercle of tibia.	11.5 “

Comparative measurements of affected knee before and after compression, taken on April 6, 1886:

BEFORE.			AFTER.
15	in.	4 in. above patella.	14 in.
15	“	3 “ “	13¾ “
15	“	2 “ “	14⅝ “
15·9	“	1 “ “	14¾ “
17.1	“	Over patella.	16.5 “
15.1	“	Over lower end of patella.	15 “
14.8	“	Over tubercle of tibia.	13 “

[For discussion see page 724]

RINGWORM. — Dr. C. R. Illingworth writes to the *British Med. Journal*: “I advise the application of 1 to 4 solution of the biniodide of mercury in the iodide of sodium. There is no more potent germicide than the biniodide, and no more penetrating salt than the vehicle I have suggested. I find that one application is quite sufficient. I prepare it thus: to half a drachm of the red iodide of mercury add half an ounce of a 1 in 4 solution of the iodide of sodium in water and shake until dissolved. Dilute this strong solution of biniodide with three parts of water, and apply thoroughly with a camel's hair brush to the parts affected. If the application be ‘too thorough’ a blister will be formed.”

PROF. SCHRIMMER advises (*Wien. Med. Woch.*, No. 8, 1889) injections of the salicylate in both acute and chronic gonorrhœa:

℞ Salicylate of mercury, gr. 1-6.
Distilled water, . ℥iii.—M.
Sig.—Inject three times a day.

EUCALYPTUS leaves reduced to coarse powder, like smoking tobacco, and smoked in a common clay pipe, the smoke being drawn into the lungs and expelled through the nose, have marked curative effects in nasal and bronchial catarrh.—*Ind. Pharm.*

A CASE OF INTUBATION IN PSEUDO-MEMBRANEOUS CROUP.

A Paper read before the Academy of Medicine, Dec. 9, 1889,

By J. E. BOYLAN, M.D.,
Laryngologyst and Otologist to the Cincinnati Polyclinic.

Intubation of the larynx is practiced so widely already that one would feel inclined to apologize, almost, for reporting another single case, if it were not for the fact, that the relative merits of tracheotomy and intubation during diphtheria and pseudo-membraneous croup are still *sub judice*, and statistics of these operations therefore, very much in demand.

The case I wish to report this evening has, I think, two especially interesting features; the one, that it scores another beautiful tally in favor of intubation; the other, the method which was adopted, after the operation, of supplying the child with the requisite amount of nourishment, and hence strength to combat the disease.

I was called in on Sunday morning, November 22, by two colleagues in the East End, and found the patient, a boy, 7 years of age, in his father's arms, cyanotic, semi-comatose, breathing slowly, and with the utmost difficulty—evidently *in extremis*.

The history was in brief as follows: A week previous to the date mentioned, the child began to cough, vomited, and was noticed to have moderate fever. As the week progressed, the cough and huskiness of the voice became marked, but as the boy seemed to be getting on well, the family physician, who was visiting a little brother, prescribed an expectorant mixture, and kept him under observation. Towards the latter part of the week, however, the cough became very croupy, the elevation of temperature still continuing. On Friday the parents noticed that he was “breathing hard,” and on Saturday the cough was extremely croupy, the boy was listless, and would cling to his mother's clothing in his efforts to fill his lungs. As the more alarming symptoms developed, the patient was freely and repeatedly vomited, and various other remedies resorted to. On Sunday evening he seemed to be doing a little better, but from 4 a. m. his breathing became steadily more difficult, and he gradually sank into the moribund condition in which I found him.

Tracheotomy having been rejected by the parents, immediate intubation was urged as the only possible chance for the patient, and reluctantly consented to. Upon the successful introduction of the tube, after one or two failures, however, the result was disappointing—little if any improvement was noticed in the breathing, though the lumen of the tube was not entirely obstructed, and, after leaving it in position for some ten minutes, I extracted it. At the suggestion of Dr. Tate, I introduced a second tube, and this time with the gratifying result of bringing almost instantaneous relief; the child breathed quite freely and rallied rapidly from his condition. As the tube fitted somewhat loosely no attempt was made that day to feed by mouth, for fear of causing its dislodgment, and enemata of beef tea and whisky were administered. The next morning found the patient in an improved condition, with stronger pulse and a temperature of 100°, having slept the greater part of the night, but, as we had expected, begging piteously for water. At the suggestion of Dr. Dunlap, he was allowed to suck a rag saturated with ice water and with milk, which brought some relief. The frequently administered enemata were well retained.

Tuesday Morning.—Breathing again somewhat laborious, though respiratory murmur and numerous rales plainly audible over posterior surface of both lungs. Patient still complaining of thirst. Same method of feeding continued.

Wednesday Morning.—There was an apparent change for the worse. Respiration freer than upon the day previous, though somewhat impeded in the tube. Temperature, 102°; pulse, 130 and weaker; patient listless and begging constantly for water. Last enemata not retained. It being evident that the child was losing ground for want of nourishment, it was decided to resort to feeding by mouth without further delay. The method adopted was one that I had seen recently suggested by Dr. Casselberry, of Chicago. The patient was placed upon his back, the body inclined head downwards, at an angle of about twenty degrees, just sufficient to cause gravitation from instead of into the trachea, and in this position he swallowed fluids, which were freely administered to him, up hill, so to speak, with evident delight and with the greatest of ease.

Thursday Morning. — Temperature, normal; pulse, 100; general condition much improved. From this time on patient improved steadily under the excellent supervision of Dr. Brunning. Medicine and fluid nourishment were taken easily and at regular intervals, and with but one slight paroxism of coughing, while the head was not held sufficiently low. I extracted the tube on the sixth day, dyspnœa did not return, and the case went on to recovery. Inspection showed the epiglottis inflamed and its position rendered laryngoscopic examination difficult. A glimpse of the chords showed them in part white, in part bright red; there was no membraneous deposit on the pharynx.

Though the danger of secondary pneumonia from the entrance of food particles through the tube into the bronchi was, no doubt, exaggerated when intubation was first introduced, this danger has remained, until recently, the most serious objection to the operation, and satisfactory feeding with the tube *in situ*, was believed to be a less hopeful undertaking than intubation itself. If Dr. Casselberry's simple method works as beautifully in all cases as it did in this, and as it has done in a number recently treated by Dr. Waxham of Chicago, and others, the problem of feeding after intubation is solved. As I have seen no mention of its adoption in any of the cases reported here, I would urgently recommend its trial.

[Discussion, see page 722].

INTERNAL USE OF TURPENTINE IN DIPHTHERIA. — Dr. Penalva, of South America (*Deut. Med. Zeit.*), had good results from this treatment. In five pronounced cases of severe type, improvement began on the second day. He uses it in mucilage with syrup tolu. Dr. Lewantaner, of Constantinople, who has for two years advocated large doses of turpentine in croup, has recently published two cases which apparently were only to be saved by tracheotomy, but which yielded to one teaspoonful of pure turpentine. This produced severe cough, by which croupous membranes were excreted. The dose may be repeated once or twice, and followed by a mixture of smaller quantities.

—*Med. Times and Register.*

Society Reports.

ACADEMY OF MEDICINE.

OFFICIAL REPORT.

Meeting, December 9, 1889.

The President, WM. JUDKINS, M.D., in the Chair.

G. A. FACKLER, M.D., Secretary.

DR. C. B. SCHOOLFIELD reported a case of

Suppurative Hepatitis (see page 715.)

DISCUSSION.

DR. KIELY considered the causation of abscess of the liver a most interesting point. He had hoped that the essayist would give a history of dysentery in his case. It is unusual to find a case of this character without a history of dysentery or traumatism. Another interesting feature is the refilling of the abscess. The speaker's experience was limited to a single case, which came under his observation some years ago. The patient was a man, fifty-six years of age, and subject to epileptic attacks for a number of years. These never occurred during the day, but always at night, and the man died of cerebral hemorrhage after twenty-four hours' illness. When first seen by the speaker he gave a history of having expectorated a quantity of pus about a year and a half previously. Temperature had mounted to 103°, and pulse was rapid. All evidences of hepatic abscess were present, and aspiration was decided upon. Before this was carried out the patient began to cough, and expectorated a tin wash-basin full of very offensive pus. The fullness disappeared and he made a good recovery. He was seen again fifteen months subsequently with the same symptoms, and the process ran the same course. The abscess involved the right lobe and was deep seated. His death occurred some five years afterwards, and up to that time there was no indication of a recurrence.

DR. HALL recalled two cases of abscess of the liver, which came under his observation while engaged in general practice, in neither of which a history of dysentery could be found.

The first was that of a man, 32 years of age, a baggage master, who had previously been always in good health. He had been confined to his bed for four or five weeks, with an obscure trouble, and the diagnosis had been uncertain for a number of weeks. He was seen in consultation by the speaker, and two or three days thereafter aspiration was resorted to. Fifty-six ounces were withdrawn at the first operation. The procedure was repeated ten or twelve times during a period extending over three or four months. During this time he suffered with septic troubles, and several times was regarded as near death. Recovery eventually ensued, after the abscess opened through the bronchial tube and pus was expectorated.

The second patient was a man 27 years of age, who was attacked suddenly and was treated for about three weeks for some form of fever. The speaker saw him in consultation and aspirated the same day. He repeated his visits every ten or twelve days, whenever there were evidences of refilling of the abscess. The aspirator needle was introduced at different points. The patient, however, was losing flesh and growing worse, and the last time the speaker visited him for the purpose of aspirating this was considered useless, and in its stead the cavity was laid open. The speaker had advocated free incision and drainage after the second aspiration, as the general condition of the patient was growing constantly worse; but they refused to have anything done more radical than aspiration, until he told the family that it was useless to tap the patient and empty the pus cavity in that way at stated intervals, when they very reluctantly consented to the operation, which was followed by such a good result. Adhesions had formed, due to the introduction of the needle at various points. Thorough irrigation was practiced, and large sloughs came away. A large drainage-tube was inserted, and the patient made a rapid recovery.

The speaker desired to know what assurance the essayist had that adhesions had formed prior to his first operation.

DR. BEEBE had observed three cases of this nature. A few years ago he had been sent to the Marine Hospital at Evansville. There he found a patient with suppurative hepatitis. From the large abscess that was found twelve pints of pus were drawn off. Instead of suturing, the cavity was washed out thoroughly every other day, with a solution of boracic acid. Patient made a perfect recovery.

The second case was interesting because the abscess followed other abscesses, possibly in the same locality. This reminds the speaker of a most important diagnostic point. A patient with abscess of the liver will in bed assume in many cases the cork-screw position, lying half on his side and half on his back. In this case the speaker made a diagnosis of hepatic abscess. A post-mortem examination disclosed a large abscess that had opened into the *vena cava*. There remained about five or six ounces of tenacious pus and slough. It seemed from the eroded surface that the abscess had opened gradually, and that the pus had been escaping gradually into the circulation. The patient was very anæmic from hemorrhage from the nose.

The third case was now under observation. The man gave a history of having had pain in the hepatic region, and that after a period of jaundice he had vomited very offensive matter, so that in all probability the abscess had opened into the stomach. As far as the liver is concerned, it seems to have resumed its position and functions. He had been well for five years, but now has an obstruction to the portal vein, and in consequence thereof considerable ascites. It had been found necessary to tap him seventeen times. The amount removed at a tapping has averaged during the last eighteen months about five gallons monthly. The fluid obtained has the appearance of thin, whitish pus. Under the microscope Dr. Freeman found it to be composed very largely of fatty substance, with other smaller bodies, along with tubercle bacilli. The man is in a better condition than a year ago. Secretion of urine is increased, showing pressure upon the renal veins. Since the tapping has been resorted to the patient has improved in flesh and strength. Five years ago urine very heavily loaded with albumen; now entirely free from it. He also has insufficiency of the mitral valve.

Dr. L. Freeman had examined the fluid referred to by the previous speaker. It proved to be a fat-emulsion, and cleared up very rapidly on the addition of ether. There were no leucocytes present, and only a few red corpuscles, probably arising from the wound produced by tapping. A few tubercle bacilli were found, mostly involution forms.

The speaker suggested a possible explanation of the symptoms present in the case under discussion. It is possible that tuberculosis of the lymphatic glands, lying between the liver and the stomach, had given rise to an abscess, which evacuated itself through the stomach, thus accounting for the quantity of pus which the patient at one time vomited. This abscess may also have involved some of the chyle-ducts, or have given rise to some chronic tubercular inflammation, which would account for the fatty fluid found in the peritoneal cavity.

The speaker described a large abdominal abscess, situated between the left extremity of the liver, the stomach, the diaphragm and the abdominal wall. This abscess occurred in a finely-developed and well-nourished man, showing no other tubercular lesions. Examination of the pus obtained at the autopsy showed the presence of tubercle bacilli. The bacilli of tuberculosis, as well as other micro-organisms, may be absorbed from the intestinal canal and lodged in the mesenteric glands, without producing lesions of either the bowel or the lymphatic ducts. The abscess mentioned arose, perhaps, in this way.

Dr. Beebe remarked that this theory might work were it not for the fact that when first aspirated, four or five years ago, the ordinary clear ascitic fluid was obtained. It is more plausible that a chronic peritonitis exists.

Dr. Schoolfield, in conclusion, stated that the causes of the affection were variable, *i.e.*, traumatism, gall-stones, intestinal ulceration due to different causes, and dysentery. In this case the patient had had a severe attack of hepatic colic, probably due to the passage of a gall-stone. The first operation was performed between the ninth and tenth ribs. There were distinct evidences of peri-hepatitis. Firm adhesions were found after the surface of the liver was reached, and hence the speaker did not hesitate to cut into the abscess. The second time, when the surface of the liver was reached, it was thought more safe to suture, since the adhesions at the lower edge of the incision did not appear very firm. The point the speaker desired to enunciate was that early recognition of the abscess is demanded in order to save as much liver tissue as possible. In the majority of cases the delay in waiting for fluctuation is too long, and jeopardizes the life of the patient. In the speaker's case there was no fluctuation at any time, but the indications pointing to the existence of an abscess were so prominent that it needed only the results of aspiration to confirm the diagnosis.

DR. J. E. BOYLAN read a report of a case of

Intubation for Pseudo-Membranous Croup (see p. 718).

DISCUSSION.

DR. T. V. FITZPATRICK: My experience in intubation of the larynx has been limited to two cases, with, I am sorry to say, not such brilliant results as Dr. Boylan's case.

The first case was a child, female, aged three years, delicate at best. The diphtheria had primarily attacked the tonsils and pharynx, the process extending down the larynx. Infra- and sub-sternal breathing was well marked, as well as cyanosis; in fact, all the symptoms common to asphyxia were present. Intubation gave instant relief. The patient died five hours later with heart failure while at stool.

The second case was a girl nine years of age. The distress from the difficult breathing was indeed pitiable. The intubation was with great difficulty performed on account of the strength of the patient and lack of perfect co-operation of the parents. The relief was instantaneous and perfect. The patient succumbed to extension of the process to the lungs, three days later.

In neither case was there any difficulty in swallowing; however, no great amount of feeding was resorted to by the mouth. Had there been any escape of food or drink into the larynx I would have followed the plan of Dr. Castleberry, that is, to lower the head of the patient until by gravity the larynx would be freed of the pressure of the foreign substance.

In regard to the relative importance between intubation and tracheotomy, there is but little room to choose so far as statistics of recoveries go. Perhaps patients will consent more readily to intubation than tracheotomy, giving an advantage to the former.

DR. STEWART: I have performed intubation four times, with the result of saving two cases. The details are as follows:

Case I.—E. R., aged five years, female, family history tubercular. This was a case which occurred in the practice of a colleague, and which developed alarming symptoms while the doctor was engaged otherwise and could not respond to the parents' call. I found the child extremely nervous, pallid, with cyanosis developing; respiration short, jerky; hoarse, barking cough; temp. 102° (axil.); pulse, feeble, 120. Dirty, grayish membrane over tonsils and posterior pharyngeal wall. Cervical glands enlarged and tender. The child had been sick for nearly a week. Another child in the same family had died of diphtheria about three weeks previous to my visit. Diagnosis: Diphtheria of pharynx and larynx. Recommended: Intubation. This was readily acceded to, and the tube was inserted without special difficulty. Relief was instantaneous. The temperature remained above normal about thirty-six hours but the patient was comfortable. The tube was thrown out once by coughing, but otherwise gave no trouble, and was removed on the eighth day. This child made a complete though tedious recovery. It is now two years since the operation.

Case II.—A. B., aged four years, male, family history good. This case was seen in consultation with my friend Dr. Rachford, of Newport, Ky. There had been pronounced pharyngeal and tonsillar diphtheria in this case. At time of my first visit the child presented all of the symptoms of stenosis in the glottis, but no membrane was apparent in fauces. The temperature was but slightly above normal, although the exact figure cannot be recalled. Cervical glands enlarged and tender; great restlessness; decidedly "croupy cough." Intubation was made and gave great relief, the child going to sleep almost immediately. Not an untoward symptom occurred; the tube was removed upon the seventh day. Recovery rapid and complete. Date of operation April 8, 1889.

Case III.—Infant S.; æt. 2 years; female; Russian; family history indeterminate; hygienic surroundings wretched; filth everywhere. This case was seen in consultation with Dr. Hillkowitz. History was that of measles, and at time of my visit an eruption, very similar to that of the disease mentioned, was present. The child had been sick for about ten days, however, and had had "sore throat" most of the time. There presented at this visit the following symptoms: Temperature, 103°; pulse, 112; child very restless and cyanotic; breathing rapid and interrupted by frequent hoarse, croupy cough. There were no signs of bronchial affection at this time. Fauces red in points and streaks; cervical glands enlarged and harder. The diagnosis of diphtheria was made, for which I accept the whole responsibility, especially since I had seen another case (fatal) of diphtheria in a related family in the same building, about six weeks before.

Intubation was recommended, agreed to and performed. The relief was tolerable; the child fell asleep in a short time and seemed to be doing well for a time. In forty-eight hours, however, there were very decided tracheal rales; the temperature 104°, and the child succumbed to the extension of the disease. The tube was removed forty-eight hours after its insertion, and was found to be filled with a grayish membrane. Occurred July, 1889.

Case IV.—Infant M.; æt. 3 years; colored; family history good. I saw this case for the first time at 2 p. m. January 24, 1889. The child had been ailing for a few days, but not enough to warrant calling in a physician. Condition: Temperature, 101.5° (axil.); pulse, 108; respiration, 30; slight cough; no lung symptoms; grayish membrane over soft palate, pharynx and tonsils; cervical glands enlarged and harder; general condition of child fair. Ordered:

℞ Hydrarg. Bichlor.
Ammon. Chlorid. aa. gr. ⅓
Aquæ, . . ℥ii. M.

Sig.—Teaspoonful hourly for three hours, then every two hours. Whisky ʒi. every two hours, and a half-hourly pencilling of throat with lime water.

6. p. m.—Condition not improved; a hoarse, barking cough was now present; child restless and slightly apathetic.

Ordered: Continue treatment. Recommended tracheotomy, which was refused; then recommended intubation. This was also refused.

12 p. m.—Child *in extremis*. I insisted upon being allowed to insert the tube. This was reluctantly granted, and I passed in the proper tube. The child ceased breathing almost immediately, and all efforts at resuscitation were unavailing. The tube was of course immediately withdrawn, but the trachea was undoubtedly tightly packed with diphtheritic membrane.

To my mind intubation is an operation which has its proper place, but I do not believe that in it we have found the cure of diphtheria. Its advocates are too enthusiastic, and I am inclined to think are disposed to exaggerate its usefulness. The following case will show how statistics may sometimes be made to answer any purpose: My friend, Dr. Rachford, had another case of diphtheria in which laryngeal symptoms occurred. He telephoned me to come over and intubate. My being absent at the time of this call gave the parents of the child time to consult some person (medical or otherwise), who decidedly opposed any interference. As a consequence no intubation was made, and still the child made an uninterrupted recovery. If intubation had been made the child would probably have recovered also, and the statistics would have been strengthened just so much.

I may be permitted to add in conclusion that I have always attached a thread to the tube and left it there; that I have never experienced any difficulty in feeding the children, without resorting to posture or special apparatus.

Dr. Boylan, in conclusion, remarked briefly that the number of deaths from pneumonia after intubation was much smaller than might have been expected. Thus of 200 cases reported in the *New York Medical Journal* in March last, by Dr. Dillon Brown, only fifteen out of 144 deaths were due to that cause. The favorable results reported in intubating for diphtheria and membraneous croup, no doubt included a certain number of cases of croup from other causes, and at times a differential diagnosis could not be definitely reached. The case presented was a typical one. He did not know just how many emetic doses the child had heartily responded to, during three days; certainly a goodly number, and he was glad he did not wait to see the effect of any more.

Dr. Apostoli, in giving the results of his treatment with electricity in gynecological cases, shows that in many instances extreme sensitiveness from pain can be relieved by a few minutes' application of the induced current.

CINCINNATI MEDICAL SOCIETY.

OFFICIAL REPORT.

Meeting of October 29, 1889.

The President, Joseph Eichberg, M.D., in the Chair.

Edward S. Stevens, M.D., Secretary.

Dr. W. L. Mussey read a report of a

Case of Popliteal Aneurism (see p. 717).

DISCUSSION.

Dr. Dandridge spoke of the method employed in this case as an advisable one to make use of in popliteal aneurism, and one which meets with considerable success. But to employ it successfully one must have considerable assistance, as the treatment runs into days and even weeks. Outside of a hospital it is not generally practicable. Dr. Mussey deserves all the credit for the diagnosis made in this case, and for carrying out the details of the treatment. This treatment is by no means painless. It may even be necessary to desist. This was the second case which the speaker had endeavored to relieve by this method. The first case was not successful; a ligature was afterwards used with success. Many surgeons, however, regard the use of the ligature as more dangerous after compression has been resorted to. By the means here employed one can continue the compression for thirty minutes where the unaided finger could not keep it up for more than ten minutes. Digital compression is much better to use than instrumental. Aneurism of the popliteal is the particular form in which compression has been successful. Success has been reported, too, in cases of carotid aneurism. It is hard to understand how compression was employed here. There are other methods of treating this disease, as by forced flexion of the knee, which slows the blood current, etc. Gangrene has followed the use of Esmarch's bandage. The more modern surgery has fallen back to compression or ligation. As to which of these methods is to be selected, it may be said that digital compression is to be attempted if the patient is not too irritable. Ligation is the operation to perform if time is an important object. Holmes says that aneurism of the anterior portion of the artery is not so favorable as lateral or posterior. Of a collection of 210 cases, 156 were successful. When we consider the alternative as being amputation, this is a very good showing.

Dr. Oliver remembered, as a student, a case under the care of Prof. Clendenin. The subject was a man forty-five years of age, of a sedentary disposition. Digital compression was employed. He remembered the fatigue that followed even five minutes' pressure by the unaided thumb. It produced such aching as to make the assistants very willing to shirk duty. In this case of Dr. Clendenin's an excoriated spot resulted from the pressure applied. Dr. Marsh finally suggested a padded key along the course of the artery. This apparatus of Dr. Mussey's to relieve the fatigue of the pressure by a weight is a desirable thing.

Dr. Leonard Freeman gave a short history of a case of aneurism cured by the patient himself. The subject was hunting in the back woods of Michigan and cut his arm with his hunting-knife. The wound healed, but a pulsating tumor was left, which continued to grow larger. He cut out a small piece of wood in the shape of a croquet-ball, padded it and bound it in place, and completely cured himself. The dressing, which was unique, was his own thought, as was the whole method of treatment.

Dr. Mussey wished to refer to the advantage of the apparatus as against the simple digital compression. He had assisted in the case of Dr. Clendenin's, already referred to, and where then the assistants were glad to give up at the end of five minutes, in the other they could go on for half an hour. There should be some weight to assist the operator.

Pancreatic Cyst.

Dr. Carson said that he wished to complete the history of a case, the first part of which he had given some months previously. There was extreme feebleness of the pulse in the case, and peculiar gastric attacks, with the presence of a tumor. He had suggested the presence of a pancreatic cyst at the time, and advised operation. The patient took the advice of some friend and went to New York, where an operation was performed, which had resulted unsatisfactorily. He has now a fistulous opening, discharging what is said to be pancreatic fluid.

THE CINCINNATI
LANCET-CLINIC:
A Weekly Journal of
MEDICINE AND SURGERY
ISSUED EVERY SATURDAY.

TERMS, $3.50 PER ANNUM IN ADVANCE.

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DR. J. C. CULBERTSON,
EDITOR AND PUBLISHER,
199 W. 7TH STREET, CINCINNATI, OHIO.

Cincinnati, December 28, 1889.

The Week.

"AS WE MUSED THE FIRE BURNED."

WANING ANNO DOMINI 1889.

As the close of the year draws nigh it is one of the most natural things in the world to ponder, as we take a retrospect of the year that is waning, and mentally strike off a balance-sheet that will be of easy completion on the eve of the day when the bells will toll the old year out and joyously ring in the new.

Pondering, looking backward, we are thrilled as we recognize the wondrous activity that has been characteristic of the entire world of science. Rapid transit means mathematically exact machinery. The glare and dazzle of electric light turns night into day in every town and city. Electric motors are rapidly taking the place of horses and mules, and even steam as a motor power is seriously threatened. Distance is annihilated. Telephonic communication has become the messenger service of every populous centre.

As we muse over these modern inventions that have revolutionized business methods in the commercial world, our thoughts turn to our own profession and note that in a corresponding degree the working methods of the medical profession have undergone a metamorphosis.

It is but a very brief period since a young man locating in this city to practice medicine would usually seek for an office a half cellar or basement, and, if this could not be obtained, a back room in the second story of a dwelling house would be made to answer his purposes. A bookcase, half dozen wooden chairs, and a table constituted a complete outfit with which to begin business. Our readers know the contrast with the elegant parlors, furnished with lavish luxury, that beckon and welcome the sick and afflicted in the year Anno Domini 1889. From the parlors or waiting room to the consultation room, the patient is taken to be examined with multitudinous instruments of precision, that are made to act with almost human intelligence as aids in formulating a precise diagnosis, while the moral and mental impression of the surroundings are enforced with explicit directions, that are made still more definite by the size of the cash consultation fee.

This is all commendable, and just as it should be. It is the business side of our our profession. There is no reason in the world why a physician's parlor should not be as elegant as a banker's, or as the counting room of the merchant prince. Their customers approve of the style by paying for it; so should the doctor's clients signify their appreciation in a similar manner. The man with a cellar office that has a coarse matting floor and Windsor chairs for his clients cannot command more than a dollar, or perhaps fifty cents, for an office consultation, and usually that amount is just about what the consultation is worth, and such is the opinion of the patient. Fine brocade and dress silks are not sold in little out-of-the-way shops, nor sealskin sacques in meanly furnished basements. All the accessories of art within crystal palaces, supplemented by the blandishing get-up of a young man of the period, attracts the multitude and sells the goods. The practice of medicine is a business mainly pursued with the same sordid motives that actuate the merchant and manufacturer, and much may be accomplished by the adoption of some of their business methods. In doing this the physician will be enabled and justified by his patients in doubling and even quadrupling many if not most of his fees. The civilization and enlightenment of the period is one of luxury, which is supposed to be always an accompaniment of wealth; all of which are regarded as supplements to mental culture and attainments. The verdict of the world, sitting as a jury, is that those in moderate and humble circumstances have a correspondingly limited culture and education. This verdict says social and society lines must be drawn and made so definite as to be easily discernible by those who read as they run.

Rapid and cheap transit in the commercial world as a potent factor has been no more prominent than the ceaseless, restless, unsatisfied activity that has so marked the doings of the medical profession. Societies have been organized and set in motion in nearly every county, while a larger scope has been mapped out in district and tri-state organizations. Keeping step, the mirror of progress, as held up in the medical press, has shown movements of advance here, there, and everywhere. Thoroughly scientific and erudite papers, with illustrations of valuable original investigations, have emanated from village practitioners, while their discussion reveals educational and professional attainments of the highest order. They also tell of a fact which is every day becoming more noticeable—the death of the race of giants. The man who presumes to hold out that his ability, learning, and standing are of a superior order is in danger, for every county can and will produce a score of men who are his competent critics, and with rapiers ready to puncture the joints in his gilded armor.

The coals are ashes; the figures have ceased to assume grotesque shapes; the fire is going out, waning with the year Anno Domini, 1889.

STATEMENTS.—This is the season of the year when there is, theoretically at least, a balancing and closing up of the fiscal books of the year that is closing. Notes are made of receipts and expenditures, wear and tear, and plans made for the ensuing year.

Rapid-transit ways and means permeate and pervade all pursuits. Competition is sharp, and long credits are legated to the past. Bills and statements of accounts are made out at the end of every month, and payment promptly insisted upon. By the very nature of things, because the business consists entirely of personal services, physicians have been slow to recognize and adopt the rapid-transit ways of the commercial world, but have too generally plodded along in the old moss-backed way of the first half of the nineteenth century.

There must be an awakening, a realization, and an acceptance of the present situation and condition of things. Doctors are obliged to live by their professional work, and those who employ them usually expect to pay for the service rendered; but bad habits of long credits are remembered, and the man who employs the physician too often says to himself: When the doctor's bill comes in, six or twelve months hence, I will be better able to pay or at least it will be more convenient.

Rapid transit to his pocket or check book should be the order of the day.

Professional services should be paid for with a retainer, or a guarantee good for the cash within thirty days, while running accounts should be followed with a statement at the end of every month. Valuable patrons will not be driven off by such a process. The man or his family are of little use or profit when they do not pay. Let RAPID TRANSIT for services be liquidated by rapid transit to the cash drawer.

A practical application of this new process may be found in the business of the Cincinnati LANCET-CLINIC. Rapid-transit payment brings a corresponding discount, and the man that suspects for a moment that his name on the subscription-list adds to its value, unless there has been a recent cash credit just to the right of it, is out of his head—delirious—and liable to heroic treatment. No man's credit is just as good as his cash.

This leads us to a personal congratulation all along the line, as we look over a list that is numbered into the hundreds and thousands of names of physicians who remit their cash promptly, with a full knowledge of the fact that the LANCET-CLINIC furnishes the freshest medical news, the earliest and best reports of medical society proceedings, and the choicest papers. The only weekly medical journal in the large and populous Ohio Valley, its place is that of leader of thought and work; with never a foe to punish, its rewards are evenly distributed to its hosts of readers, every one of whom we wish A HAPPY NEW YEAR.

FOR SALE, ETC.

FOR SALE.—$1,500 will purchase my property, with practice included, situated in the town of Potsdam, Miami County, Ohio. A fine locality, with the best of roads. Terms reasonable. A bargain for the right man. Must be a "R."

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FOR SALE.—A practice of $3,000 per year in a large town in Ohio, including office furniture, large medical library, surgical instruments, splints, pneumatic cabinet, Yale surgical chair, etc., etc. Price, $1,000. Satisfactory reason for selling. Address, E. A. E.,

1 care LANCET-CLINIC.

HEALTH DEPARTMENT OF CINCINNATI.

Statement of Contagious Diseases reported for week ending Dec. 21, 1889.

WARD.	Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Typhoid Fever.		Croup not Diphtheritic.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Deaths.
1st	...	..	...	..	..	..	...	..	...	1	...
2nd	...	..	...	..	...	..	..	..	...	..	...
3rd	...	..	...	..	...	..	3	1	...	..	1
4th	1	..	1	..	...	..	1	..	...	..	...
5th	...	..	...	..	5	1	...	..	...	..	...
6th	...	..	...	..	...	..	1	..	...	..	...
7th	...	..	...	..	...	..	1	..	...	..	...
8th	...	..	...	..	...	..	1	..	...	..	..
9th	1	..	...	..	...	..	1	..	...	..	...
10th	3	..	...	..	...	..	2	..	...	..	...
11th	1	..	1	..	...	..	3	1	...	..	...
12th	...	..	...	..	...	..	2	1	...	..	...
13th	...	..	1	..	...	..	3	1	...	..	...
14th	...	..	1	.	...	..	...	..	...	..	...
15th	...	..	1	..	...	..	...	..	...	..	...
16th	...	..	...	..	...	..	1	..	...	..	...
17th	1	..	. .	..	4	..	.	1	...	1	...
18th	1	..	...	..	...	..	2	1	...	..	...
19th	2	..	...	..	...	..	1	..	...	..	...
20th	...	..	...	..	...	..	...	..	...	..	...
21st	...	..	...	..	...	..	...	..	..	.	...
22nd	...	..	...	..	...	..	...	..	...	..	...
23rd	...		...	..	...	..	1	..	...	..	...
24th	..	..	...	..	...	1	...	..	...	..	...
25th	...	..	...	..	...	..	1	..	...	..	..
26th	4	..	..	..	...	..	..	..	...	..	...
27th	...	..	...	..	...	..	8	1	...	..	...
28th	10	..	...	.	3	..	2	..	...	..	...
29th	...	..	...	..	...	..	...	..	...	..	...
30th	...	..	...	..	...	..	7	2	...	..	...
Cin. Hosp.	...	..	...	..	...	..	...	1	...	1	...
City Orphan Asylum.	...	..	...	..	...	..	...	..	...	..	1
Marine H.	...	..	...	..	...	..	...	..	...	..	...
Totals	24	..	5	..	12	2	41	10	...	3	2
Last week.	13	..	6	..	15		45	6	...	1	3

The following is the mortality report for the week ending December 21, 1889.

Diarrhœa	3	
Dysentery	2	
Entero-Colitis	1	
Other Zymotic Diseases	18	24
Cancer	4	
Phthisis Pulmonalis	14	
Other Constitutional Diseases	3	—21
Apoplexy	2	
Bright's Disease	1	
Bronchitis	6	
Convulsions	4	
Heart Disease	12	

Liver Disease	2
Peritonitis	1
Pneumonia	11
Other Local Diseases	19—58
Old Age	3
Premature Birth	1
Other Developmental Diseases	2— 6
Suicidal	1
Deaths from all Causes	110
Annual death rate per 1000	17.60
Deaths for corresponding week in 1888	93
Deaths for corresponding week in 1887	133

Byron Stanton, M.D.,
Health Officer.

HEALTH BULLETIN.

Reports to the Ohio State Board of Health from 22 observers for the week ending December 20, 1889.

Form of Disease. In the order of prevalency.	No. who report cases.	No. of cases reported.
Tonsillitis	11	19
Bronchitis, acute	8	29
Pneumonia	8	16
Intermittent Fever	8	16
Diarrhœa	7	11
Pleurisy	4	5
Remittent Fever	3	18
Measles	3	12
Diphtheria	3	9
Typhoid Fever	3	8
Rheumatism (acute)	3	6
Scarlet Fever	2	5
Cholera Morbus	1	2
Erysipelas	1	1
Consumption (Pul.)	1	1
Cerebro-Spin. Men.	1	1
Typho-Mal. Fever	0	0
Whooping Cough	0	0
Dysentery	0	0
Croup, membranous	0	0
Cholera Infantum	0	0
Puerperal Fever	0	0

Remarks.

Reports of infectious diseases from 66 health officers and observers:

Diphtheria reported by health officers: Cleveland, 12 cases, 8 deaths; Toledo, 13 cases, 5 deaths; Akron, 2 cases; Zanesville, 8 cases; Piqua, 1 case; Springfield, 4 cases; Youngstown, 1 case, 3 deaths; Fostoria, 1 case, 1 death; Defiance, 2 cases; Alliance, 2 cases, 1 death; Ironton, 1 case; Lancaster, 3 cases; Bloomville, 2 cases. Diphtheria reported by observers at Canal Dover, Rio Grande, and Amelia.

Scarlet Fever reported by health officers: Toledo, 2 cases; Cleveland, 26 cases, 1 death; Zanesville, 6 cases; Lorain, 1 case; Ravenna, 3 cases; Washington C.H., 2 cases; Findlay, 9 cases, 1 death; Cambridge, 2 cases; Kent, 3 cases; Mt. Vernon, 1 case; Woodsfield, 2 cases; Urbana, 3 cases; Painesville, 2 cases; Crestline, 1 case, Bucyrus, 3 cases, 1 death. Reported by observers at Marion, Dupont, and Blanchester.

Typhoid Fever reported by health officers: Cleveland, 7 cases, 1 death; Springfield, 2 cases; Alliance, 2 cases; Bellaire, 1 case; Norwalk, 1 case; Lorain, 1 case. Reported by observers at Gillespieville, Rio Grande, and Blanchester.

In the following places no infectious diseases were reported during the week: Wooster, Wellston, West Liberty, Bainbridge, Middletown, Dalton, Wabash Township, St. Paris, Springboro, Salem, Warren, West Unity, and New Richmond.

C. O. Probst, M.D., Secretary.

FACTS.

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Chas. Chadwick, Otis R. Wyeth, Louis A. Schoen, Geo. J. Schoen, Chas. F. Hermann, Geo. Eyesell, and Horace L. Roy, druggists of Kansas City, Mo., were recently fined $500 each and costs for counterfeiting a preparation known as Bromidia.—*Journal of the American Medical Association*, Chicago, November 16, 1889.

Physicians desiring microscopical examinations made of morbid growths, sputum, chemical examinations of urine, etc., can have the investigation made and a report of the same furnished by sending the specimens, properly labeled and preserved, to the Curators of the Cincinnati Hospital. A fee of $5.00 will be charged for such examinations.

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REPORT OF A CASE OF EPILEPSY TREATED WITH ANTIFEBRIN.

By Edward L. Beal, M.D.,
Republic, Mo.

[*College and Clinical Record.*]

I. R., æt. 54, came to my office on May 18, 1889, complaining of severe, continuous headache, pain in the back of the neck and back, of three weeks' duration. His expression and general appearance was that of a man who had suffered a great deal of pain. He was nervous, somewhat emaciated, poor appetite, poor digestion and generally run-down. He also gave me the history of epileptic convulsions occurring from two to three times a week since childhood. He had, of course, tried several doctors and a goodly quantity of nostrums in colored wrappers with a varying degree of success. The most relief he had ever experienced was a suspension of the attacks for about four weeks under the bromide treatment. He had heard something of veratrum, and he wanted some instruction as to the proper dose and dangers of it, and expressed an eagerness to try it for the "fits." So, on general principles, I prescribed for him a mixture of pepsin, phosphoric acid and iron, with veratrum and valerian added. For his headache and backache I prescribed thirty-six powders, each of which contained gr. iv. of antifebrin, gr. iij. of quinine and gr. 1-12 of morphine, one to be taken every three hours until better; then one three times a day until it was entirely gone. He reported in a few days that his headache, etc., were entirely gone; but I told him to take all the remaining powders as directed, which he did. When his mixture was gone, he came back and had it refilled.

I prescribed for him for the first time on the 18th day of May. On the 3d day of July he had the first convulsion since the 17th day of May, a suspension of forty-six days. On the 5th he had another, and on the 9th still another convulsion. On the 10th he came back for a fresh supply of the powders, for he had concluded that it was the powders that had stopped the attacks. I then on the 10th of July put him on a six-weeks' treatment of antifebrin, gr. 2½, quinine, gr. 1½, three times a day, determined to make a more complete test of its value. I saw him last Monday, October 7, which was eighty-eight days since he had his last convulsion. His general appearance is much improved. His actions show that he has more confidence in himself, and he thinks that at last he has found in antifebrin, or in "them powders," as he calls them, a veritable talisman; to him a true "elixir of happiness," if not of "life."

Now there is one point especially to which I want to call attention; this is that these powders in some way had an influence on the attacks. True, he was taking his tonic with veratrum all the time, and he is still taking that in smaller doses; but while he was taking that steadily and continuously, the attacks returned, and when the administration of them began the second time, they were promptly suspended; just how long this suspension will last I cannot tell. If they do return (they had not returned on November 1), I shall promptly go back to antifebrin and quinine.

I do not know if this is a general custom, but I prefer, on general principles, to administer antifebrin in conjunction with such a tonic as quinine. This prolonged administration has been attended by none save good results. The effect on the convulsions, in the first place, was purely a matter of accident to me; for, while I had heard of antifebrin for epilepsy, I had no thought of that particular result when I first prescribed it to this patient. It was *given* for his rheumatic neuralgia. I may say, further, that for headache, especially of rheumatic or neuralgic character, I have found in antifebrin a valuable agent, often giving prompt relief when antipyrine had failed. I *never* use it as an antipyretic; my observation is that it is a dangerous agent. I think I have recently seen death produced by 8-gr. doses given by a brother practitioner for hyperpyrexia. If I want temperature reduction, I rely on other remedies and use other means.

There is only one way in which I ever use it in pyrexia at all, and that is one or two grains each of antifebrin and Dover's powder, given every two hours till sweating occurs. It is a valuable remedy, but in *fevers* I think its use should be greatly restricted, if not abandoned, and especially in large doses. With a normal temperature a large amount may be given without bad effect. I have myself taken within three hours 45 grains for sick headache, with prompt relief of the headache. Beyond slight cyanosis, no bad effects were occasioned. I have never given any one else so much, and before I give any quantity I take the temperature. It is not my intention, however, to speak extensively on the subject of antifebrin, only so far as it has any reference to the case under consideration. I shall watch this case very carefully, and I hope to be able to give you a more conclusive report at our next meeting, six months from to-day.

ANTISEPSIS IN TYPHOID FEVER.—Dr. O. C. Tarbox (*Medical Record*) from a study of antiseptic treatment of sixteen cases of typhoid fever, says:

1. It is most rational to produce intestinal antisepsis in this fever, knowing as we do its specific cause to be a germ, and in carbolic acid and tincture of iodine we have prompt and safe germicides. The medicines are quite easily borne by the stomach, if given in lemonade or lemon syrup, and especially after taking some nourishment.

2. By such antiseptic treatment, if given early, I believe the disease is shortened, and the severity lessened. With the exception of one case, a rare one in point of severity, all of my cases ran a much shorter course than under former plans of treatment. There was a noticeable absence of the nervous symptoms so common to typhoid fever in nearly all my cases, such as delirium, *subsultus*, carphologia, coma-vigil, and the like. Not one of the sixteen cases had active delirium, requiring restraint.

Constipation was the rule in about every case. Although I have not statistics on that point, I can remember no case in which I was obliged to check or moderate a diarrhœa; oftener mild cathartics or enemas were necessary.

3. The disease is more easily handled, and the danger to others is less by this plan of treatment. In all cases I used, of course, every precaution in that respect, by ventilation, frequent change of clothing, and thorough disinfection of the discharges by copperas and chloride of lime, and it has seemed to me I was most fortunate in confining the disease in every instance to the patient, none others taking it.

See Reduction Rates on advg. page 12.

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Contents.

ORIGINAL ARTICLES.

PASSION.—THE MODERN CRITIC. By By Chas. Everett Warren, M.D., Boston, Mass. 711

A CASE OF SUPPURATIVE HEPATITIS. By C. B. Schoolfield, M.D., Dayton, Ky. 715

REPORT OF A CASE OF POPLITEAL ANEURISM. By Wm. L. Mussey, M.D., Cincinnati. 717

A CASE OF INTUBATION IN PSEUDO-MEMBRANEOUS CROUP. By J. E. Boylan, M.D., Cincinnati. 718

THE WEEK.

"AS WE MUSED THE FIRE BURNED." 725

Statements. 726

Report of the Health Department of Cincinnati. 727

Health Bulletin Ohio State Board of Health. 728

SOCIETY REPORTS.

ACADEMY OF MEDICINE.
Meeting of December 9, 1889.
Discussion on Suppurative Hepatitis. 720
Discussion on Intubation for Pseudo-Membranous Croup. 721

CINCINNATI MEDICAL SOCIETY.
Meeting of October 29, 1889.
Discussion on a Case of Popliteal Aneurism. 724
Pancreatic Cyst. By Wm. Carson, M.D. 724

SELECTIONS.

Cooling the Body by Spray. 716

Ringworm.—Salicylate in Gonorrhœa. 718

Internal Use of Turpentine in Diphtheria. 726

Report of a Case of Epilepsy Treated with Antifebrin. 729

Antisepsis in Typhoid Fever. 730

INDEX NUMBER

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The regular course of didactic and hospital lectures will begin on September 24th, 1889, and continue until March 1st, 1890, after which examination and commencement exercises will be held.

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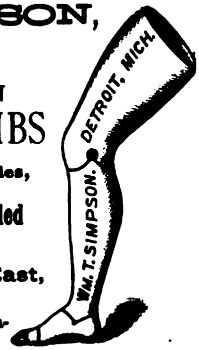
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SESSION OF 1890.

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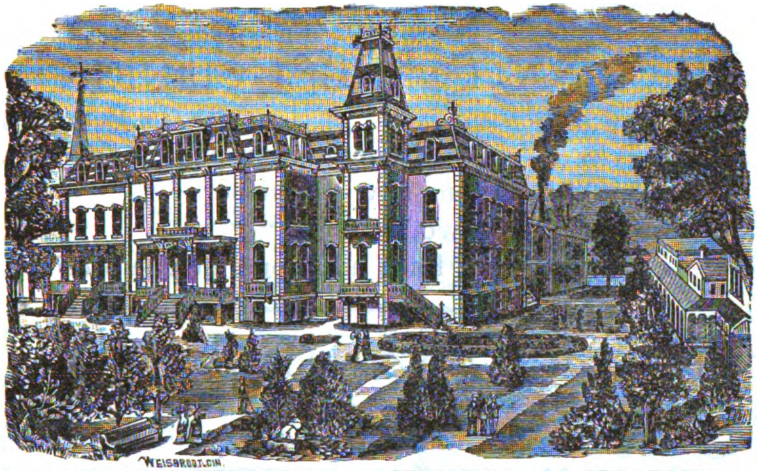

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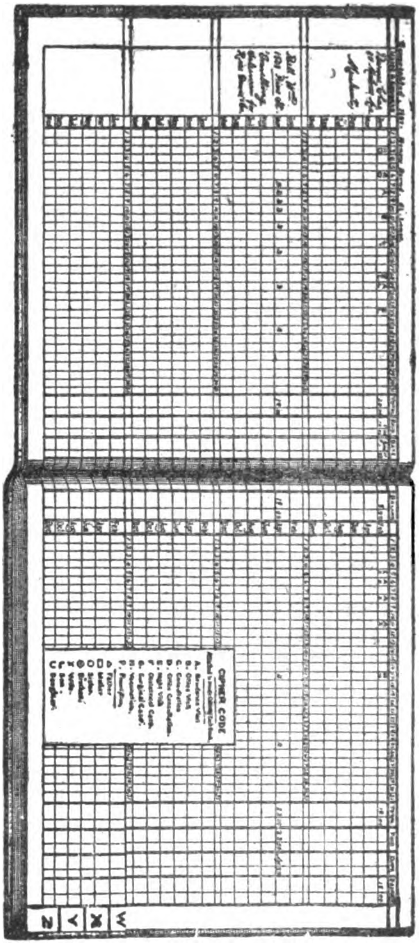

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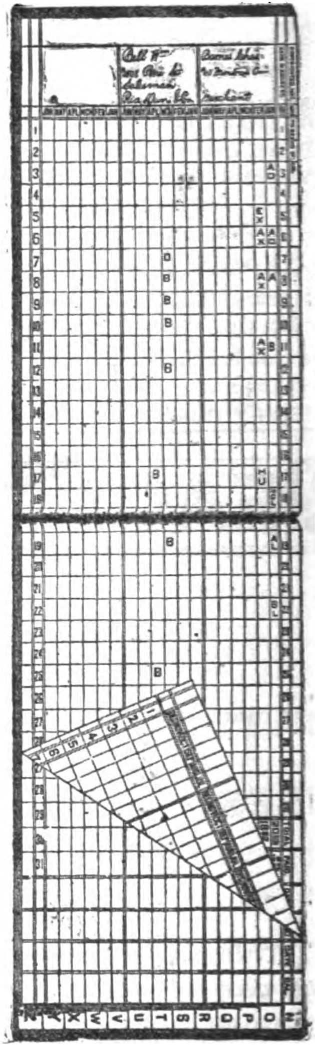

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The **PYROPHOSPHOROUS IRON WATER, " the most effective Chalybeate without taste or smell."**

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